APOS CLINICAL REFERENCE HANDBOOKS

Psycho-Oncology

A Quick Reference on the Psychosocial Dimensions of Cancer Symptom Management

SECOND EDITION

EDITED BY
JIMMIE C. HOLLAND, MITCH GOLANT,
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Preface

The first edition of this handbook was published in 2006 by the American Psychosocial Oncology Society (APOS). As the first pocket guide, it served oncology teams well to help them quickly identify and manage the common psychological problems and psychiatric disorders in patients with cancer. The handbook utilized the National Comprehensive Cancer Network (NCCN) distress management guidelines, familiar to oncologists, as its format. At that time, psychological care of patients was not considered part of routine care. It was largely seen as an add-on that could be present or, unfortunately, absent. Two major changes occurred in the oncology policy arena to make that concept obsolete. The Institute of Medicine, after a year-long study, proposed in a 2008 report, that "quality cancer care must integrate the psychosocial domain into routine care." The report noted that there was sufficient evidence base for the psychological and pharmacological interventions and that it was critical that distressed patients be identified and have access to these interventions to truly care for the whole patient. This was followed, in 2012, by the American College of Surgeons Commission on Cancer, putting forward a new accreditation standard that requires that a cancer center have an on-site program to assure that distressed patients are recognized and triaged to a proper treatment resource for psychological care. These two policy statements have given new impetus to the mission to assist oncology staff in identifying distressed patients and family members in routine practice. APOS, Oncology Nursing Society (ONS), and the American Oncology Social Work (AOSW) have provided guidance through a joint white paper supporting these changes and outlining the basic components of an onsite psychosocial program as needed for accreditation.

However, there are not as yet enough mental health professionals on oncology teams to provide the curbside consults that are at the heart of cancer care in places that have mental professionals available. Catching someone in the hallway is still the most common mode of consultation: "Remind me—how I should treat this woman with acute anxiety? What is the best drug and dose?" This updated handbook seeks to provide that information in bulleted and table forms, assuring quick access to scales that are helpful in diagnosis; drugs and their dosages; and treatment recommendations for anxiety, depression, delirium, fatigue and pain. Far more evidence-based interventions are available now for distressed patients, and overall, there are an increasing number of programs in which the psychosocial domain is an integral part of cancer care with a program of screening for distress in all patients. This is an example of effective momentum toward the goal of patient-centered care. Humanism has clearly increased in medical care as

we have taken more into account the ethics of care and research; the desire of patients to choose complementary therapies; and the attention to interventions that address pain, fatigue, and physical symptoms. The handbook is published this time, in 2014, by Oxford University Press which will give it greater visibility with oncologists and their teams. The authors and I share the expectation and pleasure that the information in the handbook will contribute to reducing the distress of patients going through the journey of cancer, and will assist oncologists in more easily treating the whole patient with cancer.

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Section I

Screening and Interventions

Chapter 1

Screening Instruments

William F. Pirl

Introduction

Screening for psychosocial distress has become a standard required by the American College of Surgeons Commission on Cancer.[1] Many instruments have been developed to assess psychosocial distress and its subtypes in cancer patients. This chapter provides a guide to these instruments. The chapter is organized according to the National Comprehensive Cancer Network (NCCN) distress algorithm, starting with a single-item tool to rapidly assess general psychosocial distress and then focusing on more specific areas of distress as the clinical evaluation proceeds.

General Distress

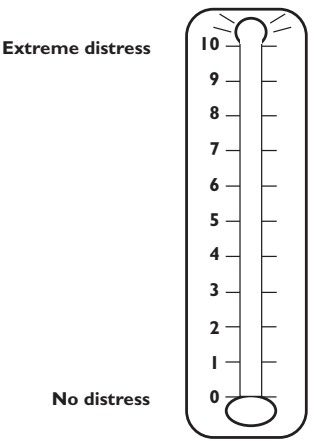
Distress Thermometer

The distress thermometer (Figure 1.1) is a 0–10 scale that asks patients to rate their distress. Scores of 4 or above should have further evaluation. The tool also contains a list of possible problems that patients can check to guide evaluation of the distress and its appropriate treatment. These problems include practical issues, family issues (see Chapter 8), emotional issues (see Chapter 6), spiritual/religious concerns (see Chapter 8), and physical issues (see Chapter 7). If patients check yes to an item under Emotional Problems, you could consider giving them modules of the Patient Health Questionnaire, the Patient Health Questionnaire 9, and Generalized Anxiety Disorder 7. If patients check yes to an item under Spiritual/Religious Concerns, you might consider evaluating this further by taking a spiritual history with the FICA questions under the heading Spirituality. If patients check yes to problems with "memory/concentration" under Physical Problems, consider further assessment with the Mini Mental Status Examination (MMSE).

Some forms of distress may not be readily identified by the distress thermometer such as substance abuse, dementia, and delirium. Based on the patient's history and clinical presentation, other assessments should be done for further evaluation. For substance abuse, consider the Alcohol Use Disorder Identification Test for Clinicians (AUDIT-C) described under the heading Substance Abuse. If there is concern about possible dementia,

SCREENING TOOLS FOR MEASURING DISTRESS

Instructions: First please circle the number (0–10) that best describes how much distress you have been experiencing in the past week including today.



Second, please indicate if any of the following has been a problem for you in the past week including today. Be sure to check YES or NO for each.

Yes	No	Practical Problems
❑	❑	Child care
❑	❑	Housing
❑	❑	Insurance/financial
❑	❑	Transportation
❑	❑	Work/school
		Family Problems
❑	❑	Dealing with children
❑	❑	Dealing with partner
		Emotional Problems
❑	❑	Depression
❑	❑	Fears
❑	❑	Nervousness
❑	❑	Sadness
❑	❑	Worry
❑	❑	Loss of interest in usual activities
❑	❑	**Spiritual/religious concerns**

Yes	No	Physical Problems
❑	❑	Appearance
❑	❑	Bathing/dressing
❑	❑	Breathing
❑	❑	Changes in urination
❑	❑	Constipatiion
❑	❑	Diarrhea
❑	❑	Eating
❑	❑	Fatigue
❑	❑	Feeling Swollen
❑	❑	Fevers
❑	❑	Getting around
❑	❑	Indigestion
❑	❑	Memory/concentration
❑	❑	Mouth sores
❑	❑	Nausea
❑	❑	Nose dry/congested
❑	❑	Pain
❑	❑	Sexual
❑	❑	Skin dry/itchy
❑	❑	Sleep
❑	❑	Tingling in hands/feet

Other Problems: _____

_____

Figure 1.1 NCCN Distress Management Guideline DIS-A—Distress Thermometer Screening Tools for Measuring Distress. Reproduced with permission from the *NCCN 1.2005 Distress Management, The Complete Library of NCCN Clinical Practice Guidelines in Oncology [CD-Rom]*. Jenkintown, Pennsylvania: ©National Comprehensive Cancer Network, May 2005.

tests under the heading Cognition (on the MMSE) and the Clock Drawing Test should be considered. If there is concern about delirium, the tests under Cognition, including the Memorial Delirium Assessment Scale, should be considered.

Emotional Problems

Patient Health Questionnaire-9

Two modules of the Patient Health Questionnaire[3] (PHQ) (Figure 1.2) can be used to screen for depression and anxiety. Both screeners can be found online at www.phqscreeners.com and are free to use. The PHQ is a self-report instrument, developed to screen for psychiatric disorders in primary care using the *Diagnostic and Statistical Manual, 4th ed. (DSM-IV)* criteria. The full PHQ contains modules that evaluate several specific psychiatric diagnoses including major depressive disorder, panic disorder, generalized anxiety disorder, somatoform disorder, eating disorders, and alcohol abuse.

Patient Health Questionnaire-9 (PHQ-9). The nine items of the PHQ for depression (PHQ-9) can be scored continuously by adding all items for a total score.[4] A cut-off score of 8 has been shown to have the best operating characteristics for identifying cases of depression in individuals with cancer.[4] The PHQ-9 can also be scored categorically to approximate the diagnosis of a major depressive syndrome according to *DSM-IV* criteria. Using this method, probable cases of depression are identified if an individual endorses at least one of the first two items as occurring at least half the days and at least four of the other seven items as occurring at least half the days. The first two items of the PHQ-9 can be used as an even briefer screen and are called the PHQ-2. Answering one of the items as at least half the time is considered a positive screen that should prompt further evaluation. (See Chapter 6, Mood Disorders.)

Generalized Anxiety Disorder—7 Item

The Generalized Anxiety Disorder—7 Item (GAD-7) (Figure 1.3) is a seven-item self-report instrument developed to screen for generalized anxiety disorder in primary care settings, but can be used to screen for most types of anxiety. It is scored by adding all the items for a total score. "Severe" anxiety is considered a score of 15 or higher, "moderate" anxiety is a score of 10–14, and "mild" anxiety is a score of 5–9.

Cognition

Mini Mental Status Examination

The MMSE (Figure 1.4) is a 14-item clinician-administered instrument to assess cognitive impairment, regardless of cause. It contains items on orientation, attention, recall, visual-spatial construction, and language abilities. Scores of 24 or less suggest severe impairment. Further neuropsychological

PATIENT HEALTH QUESTIONNAIRE-9 (PHQ-9)

Over the last 2 weeks, how often have you been bothered by any of the following problems?

(*Use "√" to indicate your answer*)	**Not at all**	**Several days**	**More than half the days**	**Nearly every day**
1. Little interest or pleasure in doing things	0	1	2	3
2. Feeling down, depressed, or hopeless	0	1	2	3
3. Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4. Feeling tired or having little energy	0	1	2	3
5. Poor appetite or overeating	0	1	2	3
6. Feeling bad about yourself—or that you are a failure or have let yourself or your family down	0	1	2	3
7. Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
8. Moving or speaking so slowly that other people could have noticed? Or the opposite—being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3
9. Thoughts that you would be better off dead or of hurting yourself in some way	0	1	2	3
FOR OFFICE CODING	0	+ ____	+ ____	+ ____
			= Total Score: ____	

If you checked off *any* problems, how *difficult* have these problems made it for you to do your work, take care of things at home, or get along with other people?

Not difficult at all	Somewhat difficult	Very difficult	Extremely difficult
□	□	□	□

Figure 1.2 Patient Health Questionnaire 9 (PHQ-9). Adapted from Kroenke K, Spitzer RL, Williams JB. The PHQ-9: validity of a brief depression severity measure. *J Gen Intern Med.* 2001 Sep;16(9):606–613.

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GAD-7				
Over the last 2 weeks, how often have you been bothered by the following problems?				
(*Use "√" to indicate your answer***)**	**Not at all**	**Several days**	**More than half the days**	**Nearly every day**
1. Feeling nervous, anxious or on edge	0	1	2	3
2. Not being able to stop or control worrying	0	1	2	3
3. Worrying too much about different things	0	1	2	3
4. Trouble relaxing	0	1	2	3
5. Being so restless that it is hard to sit still	0	1	2	3
6. Becoming easily annoyed or irritable	0	1	2	3
7. Feeling afraid as if something awful might happen	0	1	2	3
(For office coding: Total Score)	***T*** ____	= ____	+ ____	+ ____)

Figure 1.3 Generalized Anxiety Disorder-7 (GAD-7). Adapted from Spitzer RL, Kroenke K, & Williams JBW. (1999). Validation and utility of a self-report version of PRIME-MD: The PHQ primary care study. *JAMA*, 282:1737–1744.

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assessment is often needed for dementia, particularly assessments that include tests of frontal lobe functioning. The MMSE can be used serially to follow patients at risk for developing cognitive impairment or patients who have had alterations in their cognition, particularly by delirium. (See Chapter 6, Cognitive Disorders.)

Clock Drawing Test

The Clock Drawing Test[7,8,9] (Figure 1.5) is a pen-and-paper test that assesses several cognitive abilities. It is a good adjuvant test of executive functioning when given with the MMSE.[7] Patients are asked to draw a clock on a piece of paper, putting the numbers on the face, and making the hands on the clock designate a specific time, such as 10 minutes before 2. This task tests patients' ability to follow complex commands and to sequence and plan their actions, as well as their visual-spatial ability. The drawn clock can be objectively scored by a validated scoring system. There are two scoring systems, each of which has reasonable sensitivity and specificity in identifying cognitive dysfunction.[8,9] In the Sunderland et al., method, scores of 6 or more are considered normal. (See Chapter 6, Cognitive Disorders.)

INSTRUCTIONS FOR ADMINISTRATION OF MINI MENTAL STATUS EXAMINATION

ORIENTATION

1. Ask for the date. Then ask specifically for parts omitted.
   i.e., "Can you also tell me what season it is?" One point for each correct.
2. Ask in turn, "Can you tell me the name of this place?", town, county, etc. One point for each correct.

REGISTRATION

Tell the person you are going to test their memory. Then say the names of three unrelated objects, clearly and slowly, about one second for each. After you have said all three, ask him to repeat them. This first repetition determines his score (0-3) but keep saying them until he can repeat all three, up to six trials. If the subject does not eventually learn all three, recall cannot be meaningfully tested.

ATTENTION AND CALCULATION

Ask the subject to begin with 100 and count backwards by 7. Stop after five subtractions. Score the total number of correct answers.

If the subject cannot or will not perform this task, ask him to spell the word "world" backwards. The score is the number of letters in correct order.
i.e., dlrow = 5 points, dlorw = 3 points.

RECALL

Ask the patient if he can recall the three words you previously asked him to remember. One point for each correctly recalled.

LANGUAGE

Naming: Show the subject a wristwatch and ask her what it is.

Repeat with a pencil. One point for each named correctly.

Repetition: Ask the patient to repeat the sentence after you. Allow only one trial.

3 Stage Command: give the verbal instructions, then present the subject a sheet of paper. One point for each part of the command that is correctly executed.

Reading: Have the subject read the phrase "CLOSE YOUR EYES". The letters should be large and dark enough for the subject to read. Ask him to "Read the sentence and do what it says." Score correctly only if they read the phrase and close their eyes.

Writing: Give the subject a blank piece of paper and ask her write a sentence for you. Do not dictate a sentence, it is to be written by the subject spontaneously. To score correctly, it must contain a subject and verb and be sensible. It should be a complete thought. Correct grammar and punctuation are NOT necessary.

Copying: On a piece of paper, draw intersecting pentagons, each side about one inch and ask him to copy it exactly as it is. To score correctly, all ten angles must be present AND two must intersect. Tremor and rotation are ignored.

Estimate the subject's level of sensorium along a continuum, from alert to coma.

TOTAL SCORE POSSIBLE = 30
23 OR LESS: HIGH LIKELIHOOD OF DEMENTIA
25–30: NORMAL AGING OR BORDERLINE DEMENTIA

Figure 1.4 Mini Mental Status Examination (MMSE). Adapted from Folstein MF, Folstein SE & McHugh PR (1975). "Mini-mental state." A practical method for grading the cognitive state of patients for the clinician. *Journal of Psychiatric Research*, 12, 189–198; Juby A, Tench S & Baker V (2002). The value of clock drawing in identifying executive cognitive dysfunction in people with a normal Mini Mental State Examination score. *Canadian Medical Association Journal*, 167, 859–864.

MINI MENTAL STATUS EXAM

PATEINT'S NAME: _____

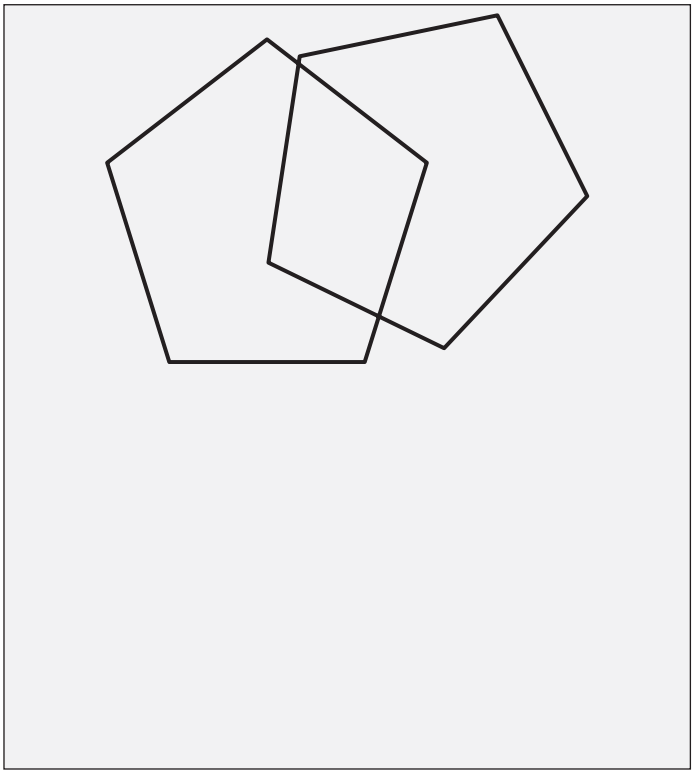
Date: _____ Client's Highest Level of Education: _____

Maximum Score	Score	
		ORIENTATION
5	( )	What is the (year) (season) (date) (day) (month)?
5	( )	where are we: (state) (county) (town) (hospital (floor)?
		REGISTRATION
3	( )	Name 3 objects: One syllable words, 1 second to say each. Then ask the patient all 3 after you have said them. Give 1 point for each correct answer. Then repeat them until he learns all 3. Count trials and record. Trials _____
		ATTENTION AND CALCULATION
5	( )	Serial 7's. 1 point for each correct. Stop after 5 answers. Alternatively spell "world" backwards. 100 – 93 – 86 – 79 – 72 – 65 – 58
		RECALL
3	( )	Ask for 3 objects repeated above. Give 1 point for each correct.
		LANGUAGE
9	( )	Name a pencil, and watch (2 points)
	( )	Repeat the following: "No ifs, and or buts." (1 point)
	( )	Follow a 3-stage command: "Take this paper in your right hand, fold it in half, and put it on the floor." (3 points)
	( )	Read and obey the following: "Close your eyes" (1 point)
	( )	Write a sentence. (1 point)
	( )	Copy design. (1 point)

_____
Total Score

Assess level of consciousness _____
along a continuum. (Alert) (Drowsy) (Stupor) (Coma)

Figure 1.4 Continued

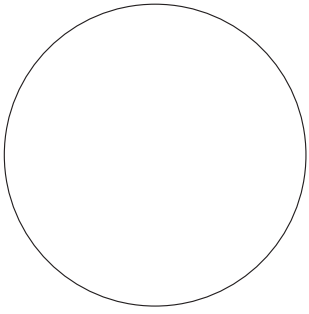


Close your eyes.

Figure 1.4 Continued

Memorial Delirium Assessment Scale

The Memorial Delirium Assessment Scale (MDAS) (Box 1.1) is a 10-item clinician-administered assessment that evaluates the areas of cognition most sensitive to impairment with delirium: arousal, level of consciousness, memory, attention, orientation, disturbances in thinking, and psychomotor activity. Scores range from 0 to 30. A score of 13 or above suggests delirium. This scale, used serially, monitors changes in function. (See Chapter 6, Cognitive Disorders.)



Please draw the numbers on the circle to make it look like a clock. Then please draw the hands of the clock to read 10 past 11.

Watson et al Scoring Method:

1. Divide the circle into 4 equal quadrants by drawing one line through the center of the circle and the number 12 (or a mark that best corresponds to the 12) and a second line perpendicular to and bisecting the first.
2. Count the number of digits in each quadrant in the clockwise direction, beginning with the digit corresponding to the number 12. Each digit is counted only once. If a digit falls on one of the reference lines, it is included in the quadrant that is clockwise to the line. A total of 3 digits in a quadrant is considered to be correct.
3. For any error in the number of digits in the first, second or third quadrants assign a score of 1. For any error in the number of digits in the fourth quadrant assign a score of 4.
4. Normal range of score is 0-3. Abnormal (demented) range of score is 4-7.

Sunderland et al Scoring Method:

Score

10-6 Drawing of clock face with circle and number is generally intact.

10 Hands are in correct position.
9 Slight errors in placement of the hands.
8 More noticeable errors in the placement of hour and minute hands.
7 Placement of hands is significantly off course.
6 Inappropriate use of clock hands (i.e. use of digital display or circling of numbers despite repeated instructions).

5-1 Drawing of clock face with circle and numbers is *not* intact.

5 Crowding of numbers at one end of the clock or reversal of numbers. Hands may still be present in some fashion.
4 Further distortion of number sequence. Integrity of clock face is now gone (i.e. numbers missing or placed at outside of the boundaries of the clock face).
3 Numbers and clock face no longer obviously connected in the drawing. Hands are not present.
2 Drawing reveals some evidence of instructions being received but only a vague representation of a clock.
1 Either no attempt or an uninterpretable effort is made.

Figure 1.5 Clock Drawing Test. Adapted from Juby A, Tench S & Baker V (2002). The value of clock drawing in identifying executive cognitive dysfunction in people with a normal Mini Mental State Examination score. *Canadian Medical Association Journal*, 167, 859–864.

Box 1.1 Memorial Delirium Assessment Scale

Instructions: Rate the severity of the following symptoms of delirium based on current interaction with subject or assessment of his/her behavior or experience over the past several hours (as indicated in each time).

ITEM 1—REDUCED LEVEL OF CONSCIOUSNESS (AWARENESS): Rate the patient's current awareness of and interaction with the environment (interviewer, other people/objects in the room; for example, ask patients to describe their surroundings).

- ☐ 0: none (patient spontaneously fully aware of environment and interacts appropriately)
- ☐ 1: mild (patient is unaware of some elements in the environment or is not spontaneously interacting appropriately with the interviewer; becomes fully aware and appropriately interactive when prodded strongly; interview is prolonged but not seriously disrupted)
- ☐ 2: moderate (patient is unaware of some or all elements in the environment or is not spontaneously interacting with the interviewer; becomes incompletely aware and inappropriately interactive when prodded strongly; interview is prolonged but not seriously disrupted)
- ☐ 3: severe (patient is unaware of all elements in the environment with no spontaneous interaction or awareness of the interviewer so that the interview is difficult to impossible, even with maximal prodding)

ITEM 2—DISORIENTATION: Rate current state by asking the following 10 orientation items: date, month, day, year, season, floor, name of hospital, city, state, and country.

- ☐ 0: none (patient knows 9–10 items)
- ☐ 1: mild (patient knows 7–8 items)
- ☐ 2: moderate (patient knows 5–6 items)
- ☐ 3: severe (patient knows no more than 4 items)

ITEM 3—SHORT-TERM MEMORY IMPAIRMENT: Rate current state by using repetition and delayed recall of 3 words [patient must immediately repeat and recall words 5 minutes later after an intervening task. Use alternate sets of 3 words for successive evaluations (e.g., apple, table, tomorrow; sky, cigar, justice)].

- ☐ 0: none (all 3 words repeated and recalled)
- ☐ 1: mild (all 3 repeated; patient fails to recall 1)
- ☐ 2: moderate (all 3 repeated; patient fails to recall 2–3)
- ☐ 3: severe (patient fails to repeat 1 or more words)

ITEM 4—IMPAIRED DIGIT SPAN: Rate current performance by asking subjects to repeat first 3, 4, then 5 digits forward and then 3, then 4 backward; continue to the next step only if patient succeeds at the previous one.

- ☐ 0: none (patient can do at least 5 numbers forward, 4 backward)
- ☐ 1: mild (patient can do at least 5 numbers forward, 3 backward)

(*continued*)

Box 1.1 (Continued)

- ☐ 2: moderate (patient can do 4-5 numbers forward, cannot do 3 backward)
- ☐ 3: severe (patient can do no more than 3 numbers forward)

ITEM 5—REDUCED ABILITY TO MAINTAIN AND SHIFT ATTENTION: As indicated during the interview by questions needing to be rephrased and/or repeated because patient's attention wanders, patient loses track, patient is distracted by outside stimuli or is overabsorbed in task.

- ☐ 0: none (none of the above; patient maintains and shifts attention normally)
- ☐ 1: mild (previously mentioned attentional problems occur once or twice without prolonging the interview)
- ☐ 2: moderate (previously mentioned problems occur often, prolonging the interview without seriously disrupting it)
- ☐ 3: severe (previously mentioned problems occur constantly, disrupting and making the interview difficult to impossible)

ITEM 6—DISORGANIZED THINKING: As indicated during the interview by rambling, irrelevant, or incoherent speech, or by tangential, circumstantial, or faulty reasoning. Ask patient a somewhat complex question (e.g., "Describe your current medical condition.").

- ☐ 0: none (patient's speech is coherent and goal directed)
- ☐ 1: mild (patient's speech is slightly difficult to follow; responses to questions are slightly off target but not so much as to prolong the interview)
- ☐ 2: moderate (disorganized thoughts or speech are clearly present, such that interview is prolonged but not disrupted)
- ☐ 3: severe (examination is very difficult or impossible due to disorganized thinking or speech)

ITEM 7—PERCEPTUAL DISTURBANCE: Misperceptions, illusions, hallucinations inferred from inappropriate behavior during the interview or admitted by the subject, as well as those elicited from nurse/family/chart accounts of the past several hours or of the time since last examination:

- ☐ 0: none (no misperceptions, illusions, or hallucinations)
- ☐ 1: mild (misperceptions or illusions related to sleep, fleeting hallucinations on 1–2 occasions without inappropriate behavior)
- ☐ 2: moderate (hallucinations or frequent illusions on several occasions with minimal inappropriate behavior that does not disrupt the interview)
- ☐ 3: severe (frequent or intense illusions or hallucinations with persistent inappropriate behavior that disrupts the interview or interferes with medical care)

(*continued*)

Box 1.1 (Continued)

ITEM 8—DELUSIONS: Rate delusions inferred from inappropriate behavior exhibited during the interview or admitted by the patient, as well as delusions elicited from nurse/family/chart accounts of the past several hours or of the time since the previous examination.

- ☐ 0: none (no evidence of misinterpretations or delusions)
- ☐ 1: mild (misinterpretation or suspiciousness without clear delusional ideas or inappropriate behavior)
- ☐ 2: moderate (delusions admitted by the patient or evidenced by his/her behavior that do not or only marginally disrupt the interview or interfere with medical care)
- ☐ 3: severe (persistent and/or intense delusions resulting in inappropriate behavior, disrupting the interview or seriously interfering with medical care)

ITEM 9—DECREASED OR INCREASED PSYCHOMOTOR ACTIVITY: Rate activity over past several hours, as well as activity during interview, by circling (a) hypoactive, (b) hyperactive, or (c) elements of both present.

☐ 0: none (normal psychomotor activity)

a b c ☐ 1: mild (Hypoactivity is barely noticeable, expressed as slightly slowing movement. Hyperactivity is barely noticeable or appears as simple restlessness.)

a b c ☐ 2: moderate (Hypoactivity is undeniable, with marked reductions in the number of movements or marked slowness of movement; subject rarely spontaneously moves or speaks. Hyperactivity is undeniable; subject moves almost constantly; in both cases, exam is prolonged as a consequence.)

a b c ☐ 3: severe (Hypoactivity is severe; patient does not move or speak without prodding or is catatonic. Hyperactivity is severe; patient is constantly moving, overreacts to stimuli, requires surveillance and/or restraint; getting through the exam is difficult or impossible.)

ITEM 10—SLEEP-WAKE CYCLE DISTURBANCE (DISORDER OR AROUSAL): Rate patient's ability to either sleep or stay awake at the appropriate times.

Utilize direct observation during the interview, as well as reports from nurses, family, patient, or charts describing sleep-wake cycle disturbance over the past several hours or since last examination. Use observations of the previous night for morning evaluations only.

- ☐ 0: none (at night, sleeps well; during the day, has no trouble staying awake)
- ☐ 1: mild (mild deviation from appropriate sleepfulness and wakefulness states; at night, difficulty falling asleep or transient night awakenings, needs medication to sleep well; during the day, reports

(*continued*)

Box 1.1 (Continued)

periods of drowsiness or, during the interview, is drowsy but can easily fully awaken him/herself)

- ☐ 2: moderate (moderate deviations from appropriate sleepfulness and wakefulness states; at night, repeated and prolonged night awakening; during the day, reports of frequent and prolonged napping or, during the interview, can only be roused to complete wakefulness by strong stimuli)
- ☐ 3: severe (severe deviations from appropriate sleepfulness and wakefulness states; at night, sleeplessness; during the day, patient spends most of the time sleeping or, during the interview, cannot be roused to full wakefulness by any stimuli)

Adapted from: Breitbart W, Rosenfeld B, Roth A, Smith MJ, Cohen K, Passik, S (1997). The Memorial Delirium Assessment Scale. *J Pain & Sympt Manage.* 1997;13:128–137.

Substance Abuse

AUDIT-C

Substance use is evaluated to assess substance abuse or dependence. The AUDIT-C (Box 1.2) consumption questions help guide the assessment of alcohol abuse. The AUDIT-C consists of the three questions shown in Box 1.2 about alcohol usage in the past year. Scores of 4 or more in men and 3 or more in women suggest potential abuse. (See Chapter 6, Substance Abuse.)

Box 1.2 The AUDIT-C Test

1. How often do you have a drink containing alcohol?
   Never = 0; Monthly or less = 1; 2–4 times a month = 2; 2–3 times a week = 3, 4 or more days a week = 4
2. How many drinks did you have on a typical day when you were drinking?
   1 or 2 = 0; 3 or 4 = 1; 5 or 6 = 2; 7 to 9 = 3; 10 or more = 4
3. How often did you have six or more drinks on one occasion?
   Never = 0, less than monthly = 1; monthly = 2; weekly = 3; daily or almost daily = 4

Adapted from: Bush K, Kivlahan DR, McDonell MB, Fihn SD, Bradley KA. The AUDIT alcohol consumption questions (AUDIT-C): an effective brief screening test for problem drinking. Ambulatory Care Quality Improvement Project (ACQUIP). Alcohol Use Disorders Identification Test. *Arch Intern Med.* May 2006; 22;166(10):1092–1097.

Box 1.3 FICA Questions

An **acronym** that can be used to remember what is asked in a spiritual history is:

F: Faith or Beliefs
I: Importance and influence
C: Community
A: Address

Some specific questions you can use to discuss these issues are:

F:	What is your faith or belief?
	Do you consider yourself spiritual or religious?
	What things do you believe in that give meaning to your life?
I:	Is it important in your life?
	What influence does it have on how you take care of yourself?
	How have your beliefs influenced your behavior during this illness?
	What role do your beliefs play in regaining your health?
C:	Are you part of a spiritual or religious community?
	Is this of support to you and how?
	Is there a person or group of people you really love or who are really important to you?
A:	How would you like me, your health-care provider, to address these issues in your health care?

General recommendations when taking a spiritual history:

1.	Consider spirituality as a potentially important component of every patient's physical well-being and mental health.
2.	Address spirituality at each complete physical examination and continue addressing it at follow-up visits if appropriate. In patient care, spirituality is an ongoing issue.
3.	Respect a patient's privacy regarding spiritual beliefs; don't impose your beliefs on others.
4.	Make referrals to chaplains, spiritual directors, or community resources as appropriate.
5.	Be aware that your own spiritual beliefs will help you personally and will overflow in your encounters with those for whom you care to make the doctor-patient encounter a more humanistic one.

Adapted from Puchalski CM, Romer AL. Taking a spiritual history allows clinicians to understand patients more fully. *J Palliat Med.* 2000;3:129–137. FICA Questions Reproduced with permission from the author. © Christina M. Puchalski, MD, FACP, Director, The George Washington Institute of Spirituality and Health Associate Prof of Medicine, Healthcare Sciences, The George Washington University School of Medine; Associate Professor of Health Management and Leadership, The George Washington University School of Public Health School of Medicine and Health Sciences; 2131 K St NW Suite 510; Washington, DC 20037; *www.gwish.org*

Spirituality

Faith, Importance, Community, Address Questions

Spirituality is an important part of many people's lives and provides a sense of connectedness and comfort during times of illness and distress. Cancer often precipitates a spiritual crisis as a person searches for meaning in their life and illness. Spirituality is evaluated by questions around four main themes to guide history taking and give a better sense of the patient's dependence on spirituality in coping with illness. They are not scored and focus on strengths. The four themes—faith, importance, community, address—can be remembered using the acronym, FICA (Box 1.3). (See Chapter 8, Spiritual/Religious Communication.)

Disclaimer

* The NCCN guidelines are a work in progress that will be refined as often as new significant data becomes available.

The NCCN guidelines are a statement of consensus of its authors regarding their views of currently accepted approaches to treatment. Any clinician seeking to apply or consult any NCCN guideline is expected to use independent medical judgement in the context of individual clinical circumstances to determine any patinet's care or treatment. The National Comprehensive Cancer Network makes no warranties of any kind whatsoever regarding their content, use, or application and disclaims any responsibility for their application or use in any way.

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Chapter 2

Pharmacological Interventions

Carlos G. Fernandez-Robles

Psychotropic drugs are highly effective for treatment of anxiety, depression, agitation, and confusion in cancer patients. Oncologists often use psychotropic medications to alleviate these symptoms. These principles will guide more effective use of the most commonly used psychotropic drugs. The major categories of drugs: antidepressants, anti-anxiety medications, and major tranquilizers (antipsychotics, neuroleptics) are outlined in Tables 2.1–2.7. Specific psychiatric diagnoses and their psychopharmacological management are outlined in Section II and in Section IV, which is devoted to unique problems associated with each type of cancer.

Table 2.1 Psychotropic Drugs by Class

Antidepressants: Selective Serotonin Reuptake Inhibitors and Newer Antidepressants (see Table 2.1)	• Benefits for major depressive disorder and chronic, recurrent anxiety. • Also used for anxiety disorders, recurrent panic attacks, obsessive-compulsive disorders. • Daily adherence is key, and symptoms gradually improve over several weeks to 2 months • Because of the co-morbidities of cancer and its treatment, doses should be started low to minimize side effects and to allow the patient to adjust to the additional drug. "Start low: go slow" is the dictum, particularly for fearful patients. • When first started, antidepressant may increase energy or anxiety. This activation can be distressing and itself and can be minimized by reducing the dose. It is helpful to assess side effects often during the first two weeks. • Suicidal ideation can occur because of depression and related to antidepressants. Sometimes energy improves before hopelessness does, and this contributes to risk of suicide. • Nausea, indigestion, and softer stools from serotonin agonists are generally mild when compared to the gastrointestinal side effects of chemotherapy or abdominal radiation therapy. Patients on medications that cause constipation, such as opioids, may welcome bowel stimulation. 5-HT3 antagonist like ondansetron can help alleviate these side effects.

(*continued*)

Table 2.1 (Continued)

	• A discontinuation syndrome can occur when antidepressants are stopped abruptly, especially those with short half-life (i.e., *paroxetine* (Paxil®) or *venlafaxine* (Effexor®)). Most antidepressants should be tapered slowly over several weeks. Symptoms are not serious, but include malaise, dizziness, and lightening-like pains. • *Venlafaxine* (Effexor®) and *duloxetine* (Cymbalta®) are both useful for treatment of neuropathic pain. • *Mirtazapine* (Remeron®) can help improve appetite and sleep, though sedating.
Antidepressants Tricyclics (see Table 2.4)	• Besides antidepressants effects, these medications minimize neuropathic pain at lower doses than the doses used for depression. • May cause postural hypotension because they block alpha adrenergic receptors. • Sedation, dry mouth, blurry vision, urinary hesitancy, and constipation can occur because of anticholinergic activity. • They prolong conduction from the His bundle to the ventricle so are used with caution in patients with bundle branch block. • Monitor for interactions with other medications commonly used in cancer (i.e.: opioids, antibiotics etc).
Anti-anxiety/ Sedative Drugs (see Table 2.4)	• Benzodiazepines are often used for nausea particularly lorazepam (*Ativan*®). Patients may have a supply at home for use with chemotherapy. Lorazepam is a good choice with medium half-life for anxiety. • Useful in anticipatory anxiety, claustrophobia, and as breakthrough medications for panic attacks. • Tolerance occurs, and same dose may not be as potent after a while; drug holidays may be an option to decrease tolerance. • Avoid abrupt stopping (even if used as needed only); discontinuation can cause rebound anxiety and jitteriness. • Withdrawal symptoms can be life-threatening and require medical attention. • Patients who drink alcohol regularly may abuse benzodiazepines.
Hypnotics (see Table 2.5)	• Hypnotics help patients to fall asleep with a short duration of action. Antidepressant medications may be better for broken sleep, early morning awakening, and hot flashes. • Rule out all other causes of insomnia before starting medications (sleep apnea, thyroid dysfunction, other medications). • When hypnotics are stopped abruptly, patients will have temporary trouble sleeping. • Patients who have confusional states and insomnia are better managed with antipsychotics. • Complex somnambulism has been reported with these agents.

(*continued*)

Table 2.1 (Continued)

Antipsychotic medications: Major tranquilizers (see Table 2.6)	• *Haloperidol* (Haldol®) is the first line treatment for agitation associated with delirium. It has been used for many years and is available in flexible dosing formulations (oral tablets, liquid, intravenous, intramuscularly). • Repeated doses can cause extrapyramidal side effects like restlessness, Parkinsonism (tremor, bradykinesia, tardive dyskinesia) that can easily be mistaken for anxiety or depression. • *Useful for treatment of hiccups*; differentiate from esophageal dyskinesias. • Antiemetics like *prochlorperazine* (Compazine®) or *metoclopramide* (Reglan®) block dopamine and give similar side effects. Additive side effects can occur when co-administered with antipsychotics. • Second generation antipsychotics like *olanzapine* (Zyprexa®) and *risperidone* (Risperdal®) have a lower risk of extrapyramidal side effects. Should be used with caution in older patients with dementia. • Orthostatic hypotension can occur with antipsychotics, especially *risperidone* (Risperdal®). • *Olanzapine* (Zyprexa®) and *quetiapine* (Seroquel®) can cause sedation and weight gain related to antihistaminic and anticholinergic activity. • Regular use can be associated with hyperglycemia. • Antipsychotics can prolong QT segment, which can lead to life threatening arrhythmias. Monitor is encouraged specially when used with other QT altering drugs.
Stimulants (see Table 2.7)	• Primarily used in the treatment of cancer-related fatigue. • Can also enhance mood in depressed patients and help with attention and cognition posttreatment. • Start at low doses and titrate depending on clinical response. • Rule out reversible systemic causes of fatigue first (cachexia, deconditioning, hypothyroidism, sleep apnea, etc). • Immediate-release agents should be dosed twice a day, and second dose should be given earlier in the afternoon to avoid insomnia. • Side effects can include anxiety, agitation, and restlessness. • Can increase heart rate and blood pressure. • All agents carry potential for abuse.

Table 2.2 Antidepressants: Selective Serotonin Reuptake Inhibitors (SSRI) and Newer antidepressants

Generic	Brand Names	Starting Dose	Maximal Dose (24h)	Sedating	Forms Available	Take Note*
Bupropion	Wellbutrin® Zyban®	75 mg	300 mg		SR (bid) XL	Risk of seizures, useful for smoking cessation
Citalopram	Celexa®	10 mg	40 mg		Sol tabs	QT Prolongation
Desvenlafaxine	Pristiq®	50 mg	100 mg			Also marketed for hot flashes
Duloxetine	Cymbalta®	20	120 mg			Also for neuropathic pain
Escitalopram	Lexapro®	5 mg	20 mg			Fewer interactions
Fluoxetine	Prozac®	5 mg	80 mg			Premenstrual syndrome, extended half life
Mirtazapine	Remeron®	15 mg	45 mg		Sol tabs	Very sedating; stimulates appetite
Paroxetine	Paxil®	5 mg	40 mg			Strong 2D6 inhibition, anticholinergic activity
Selegiline	EMSAM®	6 mg	12 mg		Transdermal Patch	MAO inhibitor, dietary restriction above 9 mg, risk for serotonin syndrome
Sertraline	Zoloft	25 mg	200 mg			
Trazodone	Desyrel®	50 mg	300 mg			Primarily for insomnia
Venlafaxine	Effexor®	25–37.5 mg	225 mg–375 mg		XR	Also for hot flashes, neuropathic pain

Table 2.3 Antidepressants: Tricyclics

Generic	Brand Name	Stating Dose	Maximal Dose (24 h)	Take Note
Amitriptyline	Elavil®	10 mg	300 mg	25–50 mg for pain
Desipramine	Norpramin®	10 mg	300 mg	
Doxepin	Sinequan®	10 mg	150 mg	Sedating, also for itching
Imipramine	Tofranil®	10 mg	300 mg	
Nortriptyline	Pamelor®	10 mg	150 mg	25 mg for pain

Table 2.4 Anti-anxiety/Sedative Drugs

Generic	Brand Name	Starting Dose	Maximal Dose (24 h)	Half Life Short|Med|Long	Take Note
Alprazolam	Xanax®	0.25 mg	4 mg	Alprazolam-short	Short acting; difficult to stop
Clonazepam	Klonopin®	0.25 mg	4 mg	Clonazepam-long	Can use BID or TID; rapid dissolving available
Diazepam	Valium®	5 mg	20 mg	Diazepam-med	Rapidly absorbed
Lorazepam	Ativan®	0.25 mg	2 mg	Lorazepam-short	Widely used anti-emetic, sleep aid
Midazolam	Versed®			Midazolam-short	At anesthesiologist's discretion

Table 2.5 Hypnotics

Generic	Grand Name	Starting Dose	Maximal Dose (24 h)	Half-life Short|Med	Take Note
Eszopiclone	Lunesta®	1 mg	3 mg	Eszopiclone-short	Sleep inducer
Oxazepam	Serax®	10 mg	30 mg	Oxazepam-short	For sleep
Temazepam	Restoril®	7.5 mg	30 mg	Temazepam-med	For insomnia
Triazolam	Halcion®	0.125 mg	0.5 mg	Triazolam-short	For insomnia
Zeleplon	Sonata®	5 mg	20 mg	Zelephon-short	For sleep
Zolpidem	Ambien®	2.5 mg	10 mg	Zolpidem-short	For sleep, technically nonbenzodiazepine, but shares properties (dependence, withdrawal)

Table 2.6 Antipsychotic Medications: Major Tranquilizers

Generic	Brand Name	Starting Dose	Maximal Dose	Forms Available	Administration Routes	Take Note
Aripiprazole	Abilify®	5 mg	30 mg	Tablet, injection, wafer, depot	P.O, I.M	Akathisia is frequent, can be mistaken for anxiety
Chlorpromazine	Thorazine®	10 mg	200 mg	Tablet, injection	P.O., IM, I.V.	Postural hypotension, sedation
Haloperidol	Haldol®	0.25 mg	30 mg	Liquid, tablet, injection, depot	P.O, I.M., I.V.	Antiemetic, risk for extrapyramidal effects
Olanzapine	Zyprexa®	2.5 mg	40 mg	Tablet, wafer, injection	P.O., I.M.	Weight gain, longterm risk for diabetes and Hyperlipidemia
Paliperidone	Invega®	6 mg	12 mg	Tablet, depot	P.O., I.M.	Bypasses liver metabolism
Perphenazine	Trilafon®	2 mg	32 mg	Tablet	P.O	Nausea
Quetiapine	Seroquel®	25 mg	800 mg	Tablet, ER	P.O.	Sedation, minimal anticholinergic toxicity
Risperidone	Risperdal®	0.25 mg	8 mg	Tablet, wafer, depot	P.O., I.M.	Postural hypotension

Table 2.7 Stimulants

Generic	Brand Name	Start Dose	Maximal Daily Dose	Take Note
Amphetamine/ dextroamphetamine	Adderall®	2.5 mg	40 mg	Available on XR
Atomoxetine	Strattera®	40 mg	80 mg	Useful in patients with history of substance abuse
Methylphenidate	Ritalin®, Concerta®, Metadate®	2.5 mg	60 mg	Available as liquid; as along acting tablet and as a transdermal patch
Modafinil	Provigil®	100 mg	400 mg	Also helpful with daytime somnolence

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Chapter 3

Nonpharmacological Interventions

Mitch Golant, Matthew J. Loscalzo, and Margo W. Walsh

Understanding the Patient Experience

The primary oncology team is the keystone for assisting the patient and family in coping. Good communication, mutual respect, and trust between oncologist and patient are critical. These are combined with clear information about the illness, help to mobilize family resources, and control of such symptoms as insomnia and poor appetite. This chapter outlines some easy and helpful brief interventions and suggests referrals to support groups and advocacy organizations in the patient's community for added support. Support groups or advocacy organizations are particularly helpful for patients who have few personal or social resources.

Evidenced-Based Interventions

This chapter outlines five evidenced-based interventions that the primary oncology staff can use for managing mild to moderate forms of distress encountered in daily practice:

- Cognitive-Behavioral Therapy (CBT).
- Stress reduction exercises.
- Problem-solving techniques: COPEExercise.
- Support groups.

Cognitive-Behavioral-Therapy Techniques

Cognitive-behavioral interventions are mental and behavioral techniques designed to modify specific emotional, behavioral, and social problems, and anxiety, depression, and distress. Fears that arise with a cancer diagnosis create a chronic state of uncertainty. Therefore, the goal of CBT is to enhance the sense of personal control and self-efficacy despite the illness.[9,10,13]

Cognitive techniques are applied to thoughts, images, and attitudes. For example, guided mental imagery is a cognitive process.

Cognitive Coping

Cognitive techniques for coping with anxiety, depression, pain, and distress increase relaxation and reduce the intensity and distressing qualities of the stressful experience. Similar techniques have been successful for coping with pain, nausea and vomiting.[10,13]

The following are samples of cognitive coping techniques that are currently considered most useful:

Distraction

- *Inattention*—imagine yourself sunbathing on the beach.
- *Mental Distraction*—do mental arithmetic, memorize a poem.
- *Behavioral Task Distraction*—read, write, hobby-related activity; hypnosis; music therapy.

Focusing

To reduce anxiety and distress (pain, fatigue, nausea) patients would be asked to:

Imagine a painful sensation such as heat radiating from an oven.

- Visualize the temperature dial and gradually turn down the heat and then turn off the oven.
- Visualize themselves as an injured football player continuing to play despite discomfort. [This is best related to patients' own experiences—it could be ballet, swimming, etc.]
- Imagine a painful body part as not being a part of their body, thereby "disassociating" the painful part.

All these methods change the focus of attention:

They modify the natural tendency for hypervigilance, that is, overconcern about a minor symptom.

They change meanings, beliefs, and habits of thinking. Often pain is worse until patients are told that the pain does not represent spread of cancer. Patients are also told that relief will not be immediate; therefore, the patient will not pay too close attention immediately after treatment and thereby diminish the positive effects.[13]

Cognitive Reframing

Patients are asked to think about problems so that they become more tolerable. If they feel overwhelmed by the thought of two months of chemotherapy, ask them to reframe the time to one week or time blocks that are more tolerable.

If they feel guilty about requiring too much of the family's time and attention, they may recognize the positive benefit of the opportunity for closeness.

Patients who view crying as a weakness may be able to see its benefit for feeling refreshed and relieved.[13]

Cognitive Modification

Note how the patients' ways of thinking make their distress greater. These cognitive processes represent beliefs and reactions that are based on personal experiences. The caregivers' recognition that the patient suffers from his pattern of thinking may count. For example, when the patient says, "I know my doctor is giving up on me. He didn't tell me how I was doing and I know that means things are bad," the staff may empathize with how negative he feels if the doctor does not reassure him. The understanding of distress can be transmitted without the patient being falsely or constantly reassured.[13]

Stress Reduction and Relaxation Exercises

Stress Reduction and Relaxation Exercises (Table 3.1) are designed to achieve mental and physical relaxation. Any method that reduces tension is useful.[9,10,13]

Problem-Solving Approach

The COPE Model (Creativity, Optimism, Planning, and Expert Information) makes tracking problem-solving much easier. Houts proposed a new conceptual model that focuses on cancer. The acronym COPE summarizes the four essential elements of the problem-solving motivational approach shown in Table 3.2.[9,11]

Recommend Exercise

Health benefits of exercise are:

Increased energy	Decreased fatigue
Improved sleep	Decreased pain
Improved blood and lymph flow	Decreased depression
Improved immune function	Decreased anxiety

Exercise is a benefit both physically and emotionally despite any level of fatigue. Table 3.3 provides a way to assess current activity/energy level, and recommended mild exercise for the amount of time that corresponds to their energy level.[5,6,17]

Table 3.1 Stress Reduction and Relaxation Exercises	
Passive Relaxation	Focusing attention on sensations of warmth and relaxation in various parts of the body with verbal suggestions and pleasant imagery.
Progressive Muscle Relaxation	Actively tense and relax muscle groups, and focus on the sensations. Find a comfortable position and sequentially tighten and relax muscle groups. Start with hands, arms, feet and legs, torso, head and the whole body.
Meditation	Chant or repeat a word or rehearse a specific sentence to focus attention away from distressing feelings and thoughts. Breathe gently in and out as the word, phrase or sentence is repeated. For example, breathe in slowly (counting 1, 2) and on the out breath slowly say, "Relax" (counting 1, 2).
Mindfulness Meditation	Focus the mind on something specific (like breath) with intention. Attend to the present moment and let go of the past and the future. The steps are: • Chose a quiet place. • Sit or lay comfortably. • Close your eyes. • Take a deep breath and let it out slowly. (Repeat 2 or 3 times.) • Focus attention on the breath—gently going in and out. • As thoughts enter just watch them and let them go like clouds or birds moving across the sky. • Return your focus to breathing in and out. • Sit quietly for a few moments • When you're ready to stop, take a deep breath and gently stretch and open your eyes. • Fifteen or 20 minutes is quite refreshing and relaxing.
Biofeedback	Relaxation of specific tense muscles or chronically aroused autonomic functions.
Guided Imagery	Find an image that is associated with a feeling of well-being and peace. Examples: A mountain stream with rushing waters or biking on a beach at sunset.

Table 3.2 The COPE Model	
Creativity	• Creativity is necessary to overcome obstacles in patient and family members, and to manage the emotional and interpersonal problems that result from a chronic illness. • Creativity is necessary to enable the family to see problems and solutions in new way.
Optimism	• Optimism is necessary to face the family attitudes and expectations regarding the problem-solving process. Family needs realistic optimism. Although they recognize the seriousness of problems, they need to see that new solutions are possible.
Planning	• Families develop plans to implement medical instructions, and plans to address the emotional challenges associated with cancer therapies.
Expert Information	• Guidance from health-care professionals on how to manage physical and emotional problems due to cancer and its related treatments encourages a sense of control and confidence.

Table 3.3 Exercise Recommendation—Quick Reference Chart

Screening Item for Activity/ Energy Level	Activity Level (Energy equiv. 1–10)	Recommended Exercise Time Goal	Recommended Exercise Type
Today I have enough energy to do my activities of daily living (work, chores, leisure) for:	15 minutes (1–2 out of 10)	2 minutes—2 times per day (or 4 minutes total or less)	Mild, Slow, Gentle Low Impact
	30 minutes (3–4 out of 10)	4 minutes—2 times per day (or 8 minutes total or less)	Walking, yoga
	2 hours (5–6 out of 10)	6 minutes—2 times per day (or 12 minutes total or less)	Talk Test – Exercise at pace you can go & still speak in full sentences without getting out of breath.
	4 hours (7–8 out of 10)	9 minutes—2 times per day (or 18 minutes total or less)	
	8 hours (9–10 out of 10)	13 minutes—2 times per day (or 26 minutes total or less)	
Avoid movement that causes pain, difficulty breathing, or any problems with existing medical conditions. Exercise enough to feel more energized, and avoid exercise that leaves you feeling more fatigued.			

Support Groups

During the last 30 years, there has been extensive research on the positive effects of support groups as a method of coping with cancer and improving quality of life. This research has shown that support groups help to improve mood and decrease depression and the perception of pain, especially in those initially more distressed.[1,3,8,15]

Community-based cancer support programs like the Cancer Support Community (www.cancersupportcommunity.org), CancerCare (www.cancercare.org), LiveStrong (www.livestrong.org), and disease-specific organizations like Leukemia and Lymphoma Society (www.lls.org), and Lung Cancer Alliance (www.lca.org) play critical supportive roles, which are part of patient advocacy organizations and are important because they offer free services to patients and families.[7,16] In nonrandomized studies of community-based cancer-support programs, participants generally rate their experiences as positive and beneficial. In a study done at the Cancer Support Community (CSC) with Stanford University support groups in the community that encourage preparing for the worst while hoping for the best have been shown to reduce cancer patients' overall distress.[16] There

is a growing body of research indicating that Internet support groups like those provided by CSC, CancerCare, and the American Cancer Society may also be effective to decrease depression and negative reaction to pain while increasing zest for life and spirituality.[12] Most recently, 183 highly distressed women with nonmetastatic breast cancer were randomized to a six-week, professionally facilitated online cancer support groups (OSGs) that emphasized self-expression of experiences and emotions (SELF) or helping interactions (HELP). Overall, there were significant declines in levels of anxiety and depression from pre- to postintervention in both arms, but greater decreases in anxiety in the SELF groups. These groups are especially useful for those who may prefer the anonymity of the Internet or those who live too far or are too ill to attend a face-to-face group.[12,18]

Keep a list of available support groups in their community to provide easy referral to the appropriate group. Some are organized by site or stage of cancer. In general, the more homogeneous the group members are, the more they share the same problems. Groups facilitators are usually trained counselors. Some patients do not find groups helpful or are afraid to try them. Referral for individual counselors in the community should be kept handy for easy reference.

Complementary Treatments

These are treatments adjunctive to conventional medical treatments that help to control symptoms and enhance the quality of life. Examples are:

- **Music/Dance Therapy:** A professional therapist engages patients individually or in groups in active or passive musical/dance experiences. Music/dance can have a mood altering effect, as well as an indirect relaxing effect through the diversion of attention from stress- provoking stimuli.
- **Art Therapy:** A therapist uses art forms to help patients express anger, loss, fears, vulnerability, and depression. Art therapy's premise is that emotions that would or could not be expressed in words can be expressed in images thereby reducing stress and isolation.
- **Journaling:** Expressive writing in the form of a journal or notebook especially about upsetting experiences can have a positive effect on negative or traumatic experiences.

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Section II

Psychiatric Emergencies and Disorders

Chapter 4

Psychiatric Emergencies

Andrew J. Roth and Jon A. Levenson

How does an oncology team handle a psychiatric emergency when a psychiatric consultant is not available? *First priority: safety of the patient and anyone else in danger.* See Box 4.1 and Table 4.1.

Interventions

Several steps may be taken to calm the patient (Box 4.2). If needed, medication may be used to tranquilize the patient. An algorithm for medication is provided in Figure 4.1, and guidance on application of the algorithm may be found in Table 4.2.

Management of a Suicidal Emergency

Assessment of Risk

Suicidal thoughts are frightening for the patient, family, and the medical staff, although they are common and may be an attempt at feeling more psychological control over an uncertain future. Figuring out if someone is in acute danger of self-destructive behavior is not always easy. The patient may be thinking, "If it gets bad enough, then I will kill myself." Most patients do not want to die and probably will not harm themselves, but wish to share their frustration and fears about their situation. (See Chapter 6, Mood Disorders.)

Assessment of patients' intent and plans to hurt themselves is vital, understanding that sometimes the most vulnerable person may be the one who will not tell you what they are planning.

Examples of Expressions of Suicide That Are Not Usually Accompanied by High Risk

- "I've dealt with this illness for so many years, I don't think I can go through another procedure and would rather die."
- "This may be a new diagnosis, but it is cancer. If the pain ever gets bad enough, I will kill myself."

Box 4.1 Who Are the Patients Who Require Urgent Management?

- Patients who are violent or suicidal.
- Patients who have questionable competency to refuse appropriate urgent treatment.
- Patients who are restless, pacing, threatening, demanding, and/or pulling out tubes.

Table 4.1 Management Principles for Psychiatric Emergencies

How can the patient be safe, watched, and assessed? The answer depends on the setting.	• In the *hospital*, call a security officer. Does the patient need an order for one-to-one constant observation for safety? • In the *clinic*, is there sufficient staff or assistance to monitor and control the patient's behavior? If not, call 911. • If at *home*, can family bring the patient to clinic or Emergency Room? If not, call 911 or police to take the patient to the nearest emergency room.
Obtain information from chart, staff, and family as quickly as possible.	• What is the behavior creating the emergency? • Assess the mental status of the patient: is s/he disoriented, delusional, hallucinating, or psychotic? • What is the timeframe for the change in behavior or cognition? • What is the medical status of the patient? • Is there any history of alcohol or substance use or abuse? Could this be related to withdrawal? • Has the patient been agitated, confused, suicidal or violent before? • What is your working differential diagnosis?
Take charge.	• The key to handling a psychiatric emergency is to *identify one person who is in charge*, preferably the oncologist. Emotions are high, and a single individual should direct the management of the emergency. Your calm stance is critical to safety for the patient, family, staff and other bystanders who are frightened by disruptive behavior. • Enlist someone the patient trusts, a staff member or family member, to reassure the patient. • Give clear and concise instructions to all involved. • Ask for psychiatric assistance if needed.
Work-up	• Assume a medical cause of agitation or confusion until proven otherwise, but keep psychogenic causes in mind if the medical options are ruled out. • Agitation or confusion may signal a medical emergency.

Being prepared	• Develop a "psychiatric code" procedure for psychiatric emergencies and practice it periodically with the team.
	• Useful institutional phone numbers should be kept on hand and easily available:
	  • Hospital Security, 911, or police
	  • Psychiatrist on call
	  • Emergency Room
	  • Chaplaincy
	  • Social Work
	  • Psychiatric hospital admission

(*continued*)

Table 4.1 (Continued)

Physical restraint	• Adequate numbers of well-trained staff are necessary to secure each limb. Four security guards or strong staff members may be needed to escort the patient. • Patients with cancer must be physically restrained with care because of their possible frailty, coagulation impairments, and fragile bones. • Physical restraints are used as briefly as possible, usually with either 2-point (arms) or 4-point (arms and legs) restraint devices. • Four-point restraints require checks every 15 minutes; a physician's order must be renewed every 4 hours. The patient remains under one-to-one constant observation status while 4-point restraints are in use. • Inject a tranquilizer, e.g., haloperidol (Haldol®), as needed when the patient is restrained if the cause of agitation is clear and not from an undiagnosed medical problem, or to facilitate a medical work-up. • Psychotropic medications should not be used as chemical restraints. • Vital signs should be checked frequently and restraint sites rotated. • Each institution may have distinct legal policies.

Medication to tranquilize (see Chapter 2, Tables 2.4 and 2.6)	• **Antipsychotics (preferred)**—haloperidol (Haldol®), chlorpromazine (Thorazine®), olanzapine (Zyprexa®).
	• **Atypical antipsychotics**—olanzapine (Zyprexa®), risperidone (Risperdal®), quetiapine (Seroquel®), ziprasidone (Geodon®)
	• **Benzodiazepines**—lorazepam (Ativan®), diazepam (Valium®) (IV and PO), clonazepam (Klonopin®), alprazolam (Xanax®) (PO)
	  • **Benzodiazepines** in excess can cause intoxication and delirium when used without neuroleptics but are useful for acute sedation; for delirium, benzodiazepines should only be used with antipsychotics.
	  • After the patient is calm, the medical evaluation needs to be expedited.
	  • Continue to observe the patient closely for safety and for the need of more medication.
	  • Tranquilizers are sometimes continued until the cause has been reversed.

Examples of Expressions with Greater Suicidal Risk

- "This pain is unbearable. There's no way I can go on living like this." The patient has a gun at home.
- "Everyone would be better off without me." The patient is stockpiling pills.

Box 4.2 Calming the Agitated Patient

- Start by talking to the patient to calm excited behavior.
- Isolate the patient away from other patients and visitors in the hospital or clinic.
- If in the hospital, escort the patient to a quiet room, with security, if needed, away from other patients.
- Determine whether family or friends are helping to calm the patient or agitating further. Enlist their help if they understand the situation.
- Identify the staff member the patient trusts (e.g., male, female, older, younger, and trusted before); ask staff members who are the target of the patient's paranoia not to participate temporarily.
- Offer the "nonchoice choice": Tell the patient they may choose what to do. "You can take the haloperidol (Haldol®) liquid, a calming medication, by mouth or we can give you an injection of Haldol®, either in a muscle or by the IV. Which would you rather have?"
- Or you may say, "We can all walk to your room and you can lie down, or the security guards can escort you to your room." Each time, you offer a less or more intrusive and coercive choice. The more rational the patient's thinking, the more likely s/he will choose the less intrusive option.
- Calm, concise explanations help the patient to cooperate. Allow the patient to express his concerns and frustrations in order to reduce the fears and lack of cooperation.

The seriousness of the patient's intentions should be explored. Suicide occurs in patients with depression, severe anxiety, panic, intoxication, or delirium. It is important to ask if the patient has made a definite plan (Tables 4.3 and 4.4).

Management of Refusal of Treatment or Demand to Leave

Another frequent emergency is the patient who wants to leave the hospital against medical advice, or who refuses medical or surgical procedures (i.e., lumbar punctures, placement of central catheters). The oncologist may have to evaluate the patient's capacity to make decisions about medical care.

	Hypoactive Delirium		Hyperactive Delirium		Hyperactive Delirium
MEDICATION:	Haloperidol	OR SWITCH TO →	Chlorpromazine	OR SWITCH TO ← →	Olanzapine
APPROXIMATE DAILY DOSE:	0.5–10 mg Q 2–12 hr		25–50 mg IV Q 4 h 12 hr if increased sedation desired OR if haloperodol or olanzapine regimen is not tolerated		2.5–5 mg if EPS is a concern or if increased sedation desired OR if haloperidol or chlorpromazine regimen is not tolerated
ROUTE:	IV, IM, PO		IV, IM, PO		PO, IM or Zydis wafer
NEED TO WATCH FOR:	Extrapyramidal symptoms (EPS), EKG If EPS is present, add benztropine 0.5–1 mg If increased sedation desired, add lorazepam 0.5–2 mg		EKG abnormalities, BP Liver function tests, Anticholinergic side effects, Hypotension		Anticholinergic side effects If EPS is presented, add benztropine 0.5–1 mg or diphenhydramine 25–50 mg

Figure 4.1 Algorithm for Medicating Agitation. See Table 4.2 for a discussion of each medication

Table 4.2 Psychopharmacological Management*

haloperidol (Haldol®)—neuroleptic agent potent dopamine blocker; **drug of choice**; effective in diminishing agitation, paranoia and fear lorazepam (Ativan®)—should not be given alone when delirium causes agitation, since it may increase confusion chlorpromazine (Thorazine®)—for a very agitated or combative patient who does not respond Newer atypical neuroleptic drugs have fewer risks of dystonia, Parkinsonism, and restlessness, but may cause postural hypotension and sedation. In the long term these medications can cause metabolic syndromes and increased glucose. • olanzapine (Zyprexa®, Zydis®) • risperidone (Risperdal®) • quetiapine (Seroquel®) • ziprasidone (Geodon®)	Check vital signs and obtain an EKG. Monitor QTc regularly. Start with low doses (0.5 mg – 2 mg dose IV, and double the dose every 30 to 60 minutes until agitation is decreased). Parenteral doses are approximately twice as potent as oral doses. Common strategy is to add parenteral lorazepam (0.5–2 mg IV) to a regimen of haloperidol, which may help to rapidly sedate the agitated delirious patient. Intravenously (see Figure 4.1), but be alert to potential hypotensive and anticholinergic side effects. Elderly or frail patients require lower doses of these medications. Added risks of sedation and postural hypotension in older patients with dementia. May be given intramuscularly. Olanzapine is available in orally disintegrating tablets (Zydis®) and intramuscularly. Risperidone (Risperdal®) is available in orally disintegrating tablets and liquid. These medications can be immediately calming. Elderly patients with dementia related psychosis are at increased risk of death with atypical antipsychotics. Monitor QTc regularly.

* see Chapter 2, Table 2.6.

Table 4.3 Questions to Ask Patients or Family When Assessing Suicidal Risk

Acknowledge that these are common thoughts that can be discussed	• Most patients with cancer have passing thoughts about suicide, such as "I might do something if it gets bad enough." Have you ever had thoughts like that? • Have you had any thoughts of not wanting to live? • Have you had those thoughts in the past few days?
Assess level of risk	• Do you have thoughts about wanting to end your life? How? • Do you have a plan? • Do you have any strong social supports? • Do you have pills stockpiled at home? • Do you own or have access to a weapon?
Obtain prior history	• Have you ever had a psychiatric disorder, suffered from depression, or made a suicide attempt? • Is there a family history of suicide? Do you know anyone who has committed suicide? How did you feel about that?
Identify substance abuse	• Have you had a problem with alcohol or drugs?
Identify bereavement	• Have you lost anyone close to you recently?
Identify medical predictors of risk	• Do you have pain that is not being relieved? • How has the disease affected your life? • How is your memory and concentration? • Do you feel hopeless? • What do you plan for the future?

Table 4.4 Interventions for Suicidal Patient

For patient whose suicidal threat is seen as serious	• Provide constant observation and further assessment. • Dangerous objects like guns or intoxicants should be removed from the room or home. • The risk for suicidal behavior should be communicated to family members. Some states require registry notification of patients deemed to have a high likelihood of hurting themselves or others.
For patient who is not deemed acutely suicidal and is medically stabilized For inpatients	• Review with the patient actions s/he can take if feeling overwhelmed or suicidal; consider making a contract with the physician to talk about suicidal thoughts in the future rather than to act on them, and to call for help if needed. • Room searches should be carried out to make sure there are no means available for self-destructive behavior. • The patient should be under constant observation from the time suicidal thoughts are expressed.
For severely suicidal outpatients whose suicidal thoughts are not acutely caused by their medical condition or medication	• Psychiatric hospitalization is warranted, either by voluntary or involuntary means. If suicidal ideation is not related to medical condition or medication, very medically ill patients may not be appropriate admissions to psychiatric units—they may be better treated with 1:1 constant observation on a medical floor. • A psychiatrist can assist in making these arrangements. Document medical action and reasoning in the crisis.

Box 4.3 Interventions to Evaluate Treatment Refusal

- Sit down with the patient to find out what he understands about his predicament.
- Do a mental-status examination and determine if there is compromise of cognition.
- Until the patient's cognition and judgment are assessed, he or she can be detained.
- Assess judgment and insight in relation to the specific decision about the procedure or situation.
- Ask yourself, "Does the patient have the capacity (understanding) to make a decision about refusing this MRI scan, or lumbar puncture?"
- The patient may be able to understand the issues related to some decisions and not to others, even in the presence of cognitive compromise or psychosis.
- The gravity of the decision to refuse treatment, the life-threatening nature or potential benefit of a decision, guides the depth of the evaluation of a patient's understanding of the illness, treatment recommendations, and consequences of refusing. In complex situations, a psychiatric consultation or an ethics committee review may be helpful.

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Chapter 5

Anxiety Disorders

Alan D. Valentine

Introduction

Cancer patients are vulnerable to anxiety in all phases of the disease experience, from screening for risk in those without documented disease, through active treatment, to life as a cancer survivor or to end-stage disease in those who do not survive. Low intensity anxiety is often self-limited and may be contained fairly easily. Anxiety is not always maladaptive and sometimes has beneficial effects (e.g., increased motivation to stop smoking, compliance with treatment recommendations, etc). More persistent or intense anxiety can significantly affect a patient's ability to function in all aspects of life and interfere with treatment. Chronic anxiety may result from serious medical pathology.

In the general population, anxiety is defined as pathological if it is disproportionate to the level of threat to the individual or disrupts normal function. This may represent a response to a new stressor (adjustment disorder) or represent a primary anxiety disorder with or without an obvious stressor.[1] It is difficult to make an assignment of excessive reaction in the face of a cancer diagnosis, which is almost always threatening. Symptoms that interfere with normal or adaptive function, regardless of perceived threat level, should be given priority. Prevalence estimates of pathological anxiety in cancer vary greatly, with rates using well-defined criteria approaching 30 percent in some studies.[2,3] Cancer patients of younger age or female gender may be more vulnerable.[3] Symptomatic anxiety will generally be more severe at significant time points (e.g., diagnosis, repeat staging exams) and in the face of uncontrolled physical symptoms.[4] See Tables 5.1 and 5.2.

Evaluation

Patients experiencing anxiety should be thoroughly assessed for disease and treatment factors that may contribute to symptoms. The National Comprehensive Cancer Network (NCCN) Distress Management Guidelines offer an algorithm (Figure 5.1).[5] The primary clinical team or a mental health specialist should search out contributing psychosocial factors. Several rating scales, including the Hospital Anxiety and Depression

Table 5.1 Signs and Symptoms of Anxiety

Psychological	• Worry, apprehension, fear, and sadness. • Patient may be able to identify focus or source of these symptoms. • Often nonspecific and "free floating." • Crying spells, ruminations. • Typical complaint (especially at night): inability to "turn off" one's thoughts.
Physical	• Tachycardia and tachypnea. • Tremor, diaphoresis, nausea, dry mouth, insomnia, and anorexia.
May be intermittent; increasing over hours or days	• In response to a stressor (e.g., anticipation of pending diagnostic tests or procedures) with resolution if/when the stressor passes.
May be persistent and pervasive through the day	• Typical of primary anxiety disorders. • Co-morbid depressive disorders. • Reactions to chronic stressors (e.g., fear of cancer recurrence, family/financial problems). • Side effects of regularly prescribed medications.
Panic attacks present with paroxysmal acute anxiety	• Severe palpitations, diaphoresis, and nausea. There is often a sense of great fear of a catastrophic event, described as a "feeling of impending doom." • Usually last for at least several minutes. The frequency is variable with multiple possible events in a single day.

Table 5.2 Etiology of Anxiety

Primary Psychiatric Disorders In the face of a cancer diagnosis or recurrence, exacerbations of these disorders may be anticipated. Patients with primary mood disorders and dementias also frequently experience symptoms of anxiety.	• Anxiety disorders are common in the general population. • These include generalized anxiety disorder (12-month prevalence 2.9%). • Panic disorder with/without agoraphobia (2-3%). • Obsessive-compulsive disorder (1.2). • Posttraumatic stress disorder (PTSD) (3.5%).[1]

Cancer-Related: Psychological anxiety can be interpreted as a reaction to threat.	• Anxiety increases in setting of:
	  • Initial diagnosis,
	  • Anticipation of check-ups,
	  • Diagnostic studies that might detect recurrence,
	  • With advancing disease,
	  • News of poor prognosis,
	  • At the end of active treatment, or
	  • when surveillance intervals are increased.
	• Patients who are successfully treated may experience chronic anxiety related to fear of recurrence.

(*continued*)

Table 5.2 (Continued)

	• Patients who undergo genetic testing may also experience significant anxiety regarding their own health and that of their families.
Phobic reactions often present with anxiety that may escalate to full-blown panic	• Claustrophobic patients may have difficulty with procedures including magnetic resonance imaging scans and enforced long-term confinement in hospital (e.g., bone marrow transplant). • Needle phobia and "white coat syndrome" are especially problematic for some patients.
Conditioned responses	• Anticipatory nausea, often associated with anxiety. • Posttraumatic stress disorder in patients who survive cancer or who must undergo additional treatment.
Disease and treatment-related: May manifest at any time. Consider increased likelihood of "organic" anxiety with increased acuity of medical illness	• Congestive heart failure/pulmonary edema. • Pulmonary embolism. • Myocardial infarction. • Hormone-secreting tumors (pheochromocytoma). • Seizure. • Unrelieved pain.
Disease complications: electrolyte abnormalities especially in patients with brain injury (i.e., dementia); delirium due to any cause; early indication of evolving sepsis; impending seizure	• Hypercalcemia. • Hyperthyroidism. • Hypoglycemic. • Hyponatremia. • Hypoxia—initial consideration in any patient with pulmonary disease or anemia.
Drugs: Several drugs used in supportive oncology may be associated with anxiety (See Chapter 2, Table 2.1.)	• Anticholinergic, e.g., benztropine, diphenhydramine (Benadryl®). • Stimulants, e.g., methylphenidate (Ritalin®). • Sympathomimetics, e.g., albuterol inhaler. • Steroids-mood lability and agitation. • Immunosuppressants, e.g., cyclosporine. • Drug withdrawal from benzadiazepines, alcohol, narcotics, barbituates. • Older anti-emetics including promethazine (Phenergan®), metoclopramide (Reglan®), and prochloroperazine (Compazine®) can cause akathisia, a sense of severe internal anxiety and restlessness associated with motor agitation, i.e., pacing. • Antipsychotics such as haloperidol (Haldol®), risperidone (Risperdol®), and olanzapine (Zyprexa®) can also cause akathisia. • Opioid analgesics and benzodiazepine anxiolytics may cause confusion or delirium in patients with cognitive impairment.

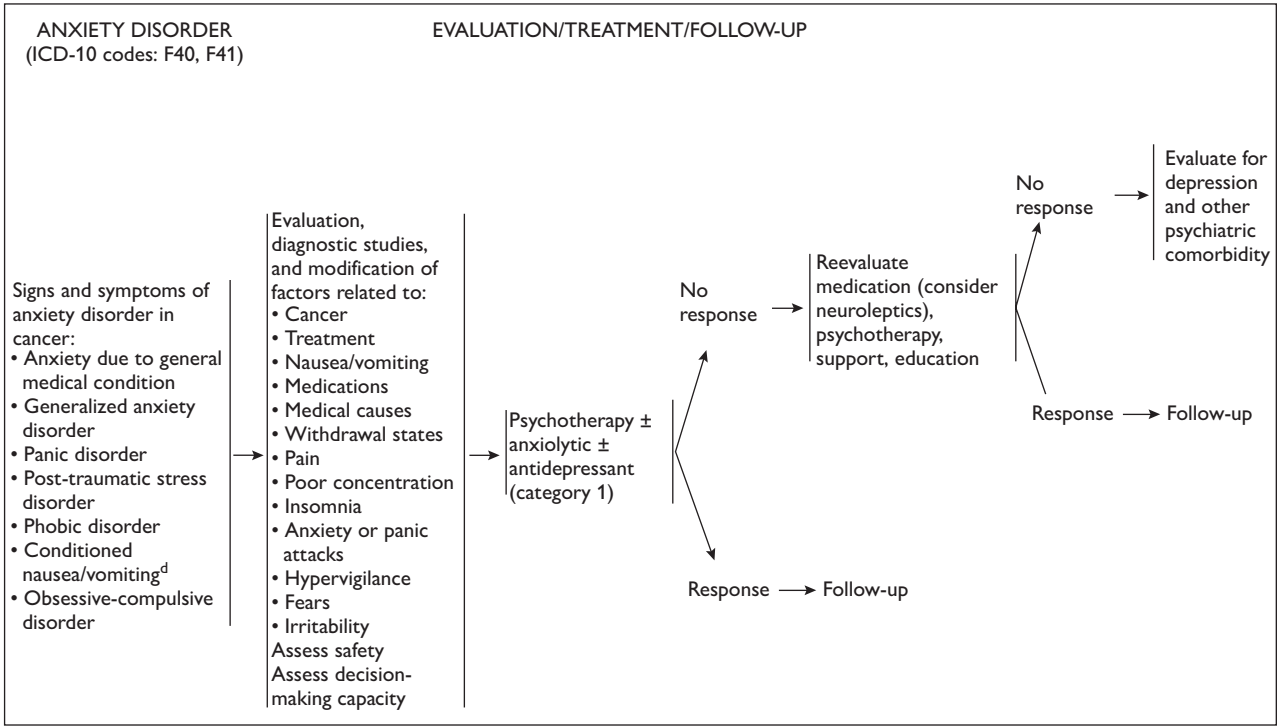

Figure 5.1 NCCN Distress Management Guideline DIS-16- Anxiety Disorder—Evaluation and Treatment. Adapted from Holland JC, Andersen B, Breitbart WS, et al. Distress management. *Journal of the National Comprehensive Cancer Network*. Feb 1 2013;11(2):190–209.

Scale may be used in cancer settings to help detect anxiety, though utility may be greater in research assessment of interventions. Patients who screen positive for significant anxiety should be referred for further assessment and possible intervention.[6]

Interventions

Any medical or physical causes of anxiety should be identified and corrected if possible. If anxiety persists, then anti-anxiety medications may be useful. See Tables 5.3 and 5.4.

Psychotherapeutic interventions have limited demonstrated efficacy in management of cancer-related anxiety, but are routinely employed.[6] See Box 5.1.

Table 5.3 Anti-anxiety Medications

Benzodiazepine (BZP) anxiolytics: Most often used for management of acute anxiety.[7] Generally safe, though respiratory suppression is possible in patients with compromised pulmonary function and those treated with central nervous system depressant agents. Patients with cognitive impairment of any type may become disinhibited or delirious when treated with BZPs. Potentially drugs of abuse, though that is usually not a problem in the oncology setting.	Short-acting drugs such as lorazepam (Ativan®) and alprazolam (Xanax®) have a rapid onset of action and are useful for intermittent acute anxiety or panic, and as premedications before procedures or tests. Preferred in more seriously ill patients. Longer-acting drugs such as diazepam (Valium®) and clonazepam (Klonopin®) are useful for more persistent anxiety. Tolerance develops less rapidly with these drugs. Use cautiously in settings of hepatic impairment, critical illness, and in the elderly.
Antipsychotic drugs: Appropriate in patients vulnerable to adverse effects of BZPs (e.g., cognitive impairment, history of drug dependence).	Haloperidol (Haldol®), olanzapine (Zyprexa®), quetiapine (Seroquel®). Appropriate for anxiety in low doses, especially agitation or terror.
Opioid analgesics: Especially effective in management of anxiety in terminally ill patients, particularly when respiratory failure is a cause of anxiety.[8]	morphine sulphate
Antidepressants: May have efficacy in the cancer setting for patients with preexisting anxiety disorders and in situations where anxiety is not expected to remit quickly.[6] Antidepressants generally are not useful for "as needed" treatment of anxiety.	Selective serotonin reuptake inhibitors (SSRIs) i.e., fluoxetine (Prozac®), sertraline (Zoloft®), paroxetine (Paxil®), citalopram (Celexa®), escitalopram (Lexapro®).
See Chapter 2.	

Table 5.4 Selected Drugs for Management of Anxiety in Cancer Patients

Drug	Starting Dose	Maintenance Dose
Selective serotonin reuptake inhibitors		
escitalopram (Lexapro®)	10–20 mg	10–20 mg/day PO citalopram?
fluoxetine (Prozac®)	10–20 mg qAM	20–60 mg/day PO
paroxetine (Paxil®)	20 mg/day qAM	20–60 mg/day PO
sertraline (Zoloft®)	25–50 mg qAM	50–150 mg/day PO
Benzodiazepines		
alprazolam (Xanax®)	0.25–1.0 mg	PO q 6–24h
clonazepam (Klonopin®)	0.5–2.0 mg	PO q 6–24h
diazepam (Valium®)	2–10 mg	PO/IV q 6–24h
lorazepam (Ativan®)	0.5–2.0 mg	PO/IM/IVP/IVPB q 4–12h

IM = intramuscular; IVP = IV push; IVPB = IV piggyback; PO = oral.
See Chapter 2.

Box 5.1 Psychotherapy and Behavioral Interventions for Anxiety

- Individual and group psychotherapy.
- Behavioral interventions including relaxation, self-hypnosis, and guided imagery training.
- Many of these interventions require referral to a mental health professional or primary clinician trained in the appropriate treatment modality. This may or may not be practical, depending on resources and patient preferences.
- In the primary oncology setting, supportive psychotherapy is almost universally appropriate. Decreases isolation and strengthens core coping skills.
- Key components of supportive therapy: effective communication; patient education; involvement of family, institutional, and community support systems.

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Chapter 6

Mood Disorders

Alan D. Valentine

Introduction

Disorders of depressed mood are common in cancer patients.[1–3] Less often, patients will present with elevated or expansive mood consistent with mania. Left untreated, these disorders are associated with adverse clinical outcomes, increased costs, and increased emotional burden for patients and caregivers. The differential diagnosis of depression-like presentations in cancer can be challenging. Accurate diagnosis can be difficult, but is important because treatment will vary depending on the actual cause of symptoms. Barriers to treatment include cultural factors and a presumption that depression is a natural consequence of cancer. Lack of agreed-upon screening instruments, lack of infrastructure for psychosocial support, and uncertainty about diagnosis and cost also add barriers.[4] See Box 6.1 and Table 6.1.

Etiology

Assessment of mood disorders in cancer patients should include consideration of the patient's past history of anxiety and depressive disorders as well as specific reversible disease and treatment factors that can contribute to low mood. See Table 6.2.

Box 6.1 DSM-V Criteria: Major Depressive Episode

- Depressed mood.
- Diminished interest or pleasure in activities.
- Significant weight loss/gain or decrease/increase in appetite.
- Insomnia or hypersomnia.
- Psychomotor agitation or retardation.
- Fatigue or loss of energy.
- Feelings of worthlessness or excessive guilt.
- Diminished ability to think or concentrate, or indecisiveness.
- Recurrent thoughts of death or suicidal ideation.

Adapted from *Diagnostic and Statistical Manual of Mental Disorders, 5th ed. Washington, DC: American Psychiatric Association; 2013.*

Table 6.1 Syndromes of Mood

Major Depression Disorder: Patients who meet criteria for diagnosis of primary or secondary major depression (Table 6.6) will experience one or both of the hallmark emotional symptoms of depression (dysphoria, anhedonia) and at least five of the listed symptoms. *DSM-5* criteria also require the presence of vegetative and/or somatic symptoms, which, with psychological symptoms, must be present for at least two weeks and represent a distinct change from prior function.[5] A careful history is often needed to determine the etiology of these symptoms. Because the etiology of vegetative/somatic symptoms may be difficult to determine confidence, many researchers recommend that more emphasis be placed on psychological symptoms.	**Psychological symptoms** include dysphoria (sadness), lack of pleasure (anhedonia), hopelessness, and feelings of guilt. The first two of these, especially, are what most patients and clinicians consider to be "depression." Difficulty comes with consideration of the vegetative and somatic symptoms. Especially common in the experience of cancer and its treatment as well as depression are: • changes in sleep, • changes in appetite, • changes in concentration, • loss of physical energy.
Adjustment disorders, e.g., the adjustment to the diagnosis of cancer, its course, and treatment	With the physical and emotional challenges of cancer, patients may experience the **psychological symptoms** of depression with or without physical symptoms and are often very distressed. Adjustment disorders (also known as "minor depression" or "reactive depression") are the most common mood disorders diagnosed in cancer patients. The diagnosis requires that the patient experiences sadness or inability to take pleasure in life as a response to a stressor like cancer temporally related to the onset of symptoms, and that the symptoms are sufficiently severe that they cause impairment of social or occupational function. They may not meet criteria for major depression (Table 6.6) or secondary mood disorders because low mood is not persistent.
Primary or secondary mania	**Psychological symptoms** include elevated and expansive or irritable mood and rapid or pressured speech. Thought processes can seem illogical. Patients often experience a decreased need for sleep, increased energy and impulsive or erratic behavior. Patients may speak of depressed mood when they are irritable.

Table 6.2 Etiology

Drugs	• Corticosteroids, especially in chronic use, may cause depressive syndromes and acutely may cause presentations consistent with mania. • Central nervous system depressant medications, including opioid analgesics, benzodiazepines, and barbiturates, may cause depression in patients with idiosyncratic vulnerability or with cognitive impairment.
Antineoplastic drugs	Depressive syndromes may be encountered as side effects of • vinca alkyloids • L-asparaginase • procarbazine • Of much greater concern are biological response modifiers including interferon-alpha and interleukin-2 (IL-2). Interferon especially is associated with depression and may occasionally cause mania.
Metabolic abnormalities	• electrolytes (especially sodium) • calcium • B-12 and folate • parathyroid function • especially thyroid function
Tumor	A few primary malignancies have been associated with depression • occult carcinoma of the pancreas • central nervous system lymphomas • primary brain tumors.
Unrelieved pain	Significant cause of depression in cancer patients. Depression may also change a patient's perception of the meaning and severity of pain. Pain or the fear of unrelieved pain is a critical variable in requests for physician-assisted suicide.

Evaluation

Patients should be assessed when they or their families complain of depressive symptoms and when a mood disorder is suspected clinically. Rating scales are routinely used to screen for mood disorders. Some of the most popular include the Patient Health Questionnaire (PHQ-9), and the Hospital Anxiety and Depression Scale (pp. 7–8). Although these and other instruments can be very useful to identify patients who may be depressed, they are not sufficient to make a diagnosis of depression. They are not substitutes for a careful history and clinical examination of the patient. The examination should include assessment of the severity and duration of psychological and somatic symptoms, and their impact on the patient's quality of life and treatment of disease. Sometimes patients with cognitive impairment appear depressed but are suffering apathy or hypoactive delirium more than depression. Sometimes they have both depression and cognitive impairment. See Figures 6.1a and b, Box 6.2, and Box 6.3.

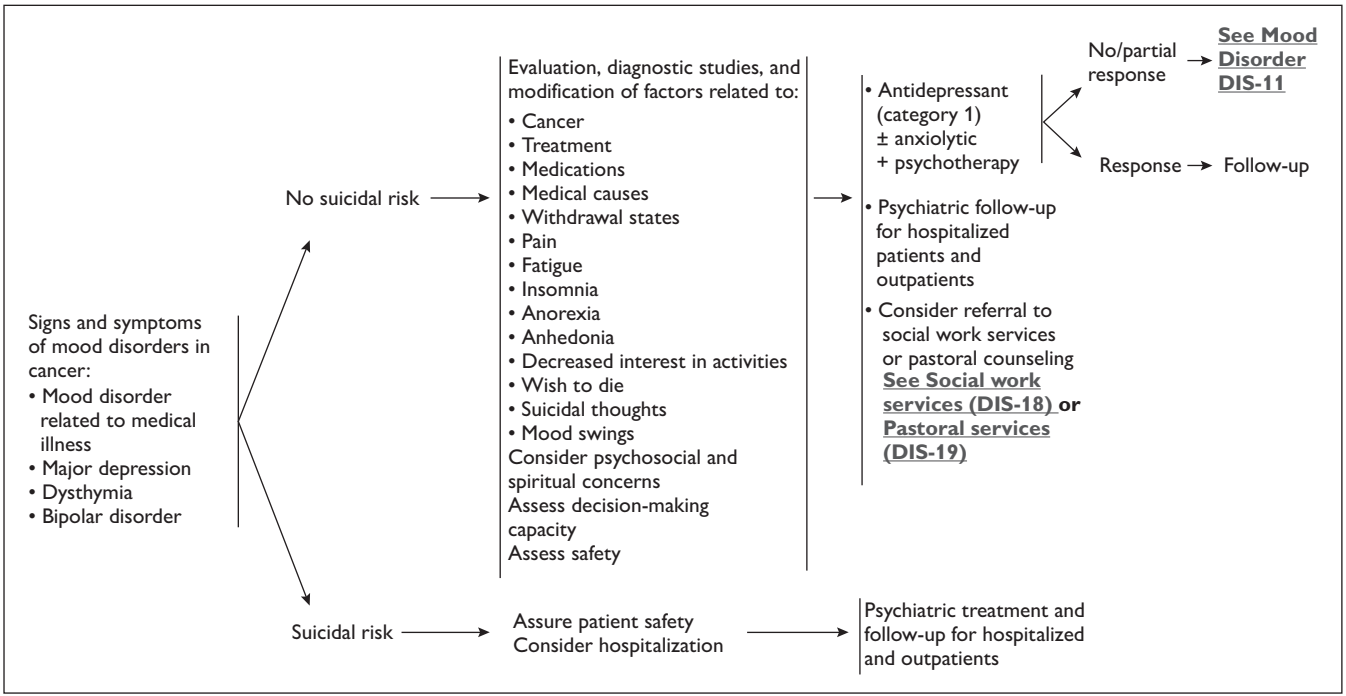

Figure 6.1 NCCN Distress Management Guideline DIS-10, DIS-11—Mood Disorder. Adapted from Holland JC, Andersen B, Breitbart WS, et al. Distress management. *Journal of the National Comprehensive Cancer Network*. Feb 1 2013;11(2):190–209.

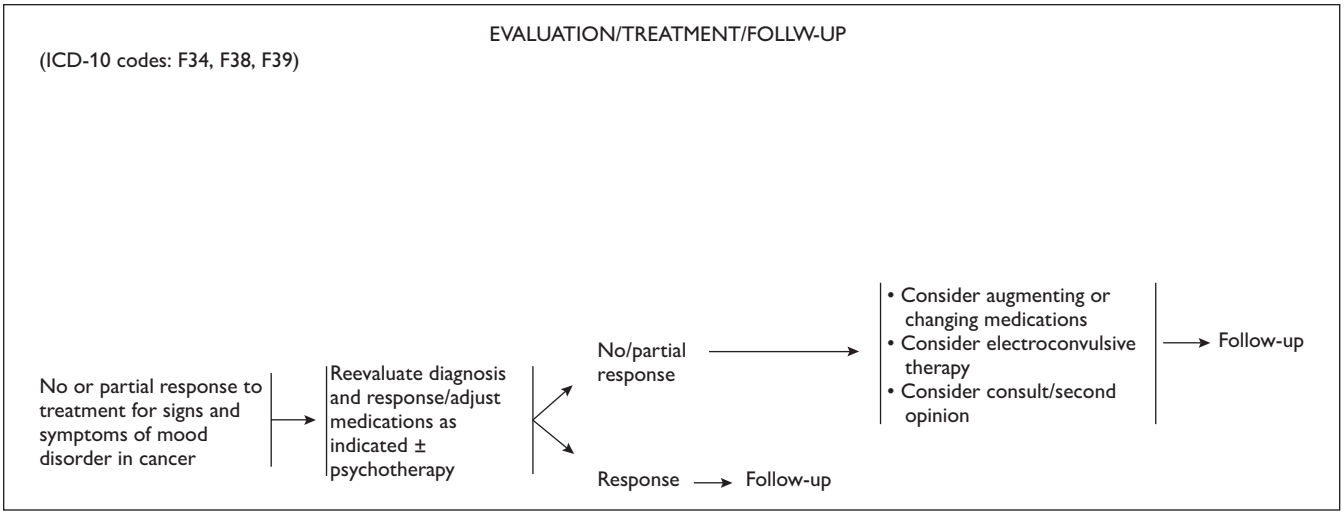

Figure 6.1 Continued

Box 6.2 Assessment of Suicide Potential

- Patients with any type of mood disorder should be assessed for suicide risk.
- Conducted in an open, nonjudgmental manner, gives the patient permission to talk about thoughts that may be very frightening.
- Slightly indirect approach to the question of suicide risk may be helpful at first. The patient might be asked if he ever has thoughts that life is no longer worth living; if yes, does he have thoughts of ending his own life and if so, does he have a plan?
- It is fairly common for cancer patients to have passive suicidal ideations with no active desire to die, or plan.

Box 6.3 Risk Factors for Suicide

- Active suicidal ideation with desire/plan to die.
- Depression.
- Advanced disease.
- Social isolation.
- Uncontrolled pain.
- Physical and emotional exhaustion.
- Mild delirium.
- Alcohol or substance abuse.
- Past psychiatric history.
- Male gender.

Interventions

See Boxes 6.4 and 6.5 and Tables 6.3 and 6.4.

Box 6.4 Management of Suicide Threat

- Safety of patients at risk for suicide must be secured.
- Do not leave alone until they can be evaluated and started in treatment.
- May need to pursue voluntary or involuntary admission to hospital.
- Any disease and treatment related factors (especially pain) that may be contributing to the presenting mood disorder should be addressed.

Box 6.5 Psychotherapy for Mood Disorders

- Supportive psychotherapy in patients with major and minor depression is almost universally appropriate as one element of treatment.
- Goal: decrease perception of isolation and bolster coping skills.
- Support can be provided by members of the primary team and also by allied health professionals including social workers and chaplains.
- More formal and structured psychotherapy may be appropriate on a case-by-case basis.[7] This usually involves referral to a mental health professional of any discipline with appropriate training.

Table 6.3 Medication Management

Antidepressants and mood stabilizers: Choice of antidepressant usually is based on side effect profile.	• No antidepressant formulations allow parenteral administration. • The use of antidepressants is a matter of clinical judgment. • Patients who meet criteria for major depression should be treated. • Patients with severe adjustment disorders or who do not meet full criteria for depression may also benefit from antidepressant therapy. • Almost all the antidepressants available in general clinical practice can be used in cancer patients.[8] • Selective serotonin reuptake inhibitor (SSRI) antidepressants (citalopram, fluoxetine, escitalopram, paroxetine, sertraline) and the newer combination agents (bupropion, duloxetine, venlafaxine, mirtazapine) are used most frequently in oncology because of their safety and generally favorable side effect profiles. (See Table 6.4 and Chapter 2, Table 2.2.) • Tricyclic antidepressants (TCAs) are potentially problematic because of anticholinergic and anti-alpha-adrenergic effects. However, they are inexpensive and can be useful in patients with co-morbid neuropathic pain syndromes. (See Table 6.4 and Chapter 2, Table 2.3.) • They take anywhere from 2–4 weeks to take effect. • Patients should be monitored for side effects and response of symptoms. • Seriously ill and elderly patients should be started at low doses, with cautious dose escalation if the drug is tolerated. • Continue for 4–6 months of sustained response before considering discontinuation. • Cancer patients with preexisting bipolar mood disorder ideally should be maintained on mood stabilizers (i.e., lithium, valproic acid) and antipsychotic medications. Dehydration associated with treatment-associated vomiting and diarrhea can affect lithium levels, which should be monitored closely during active treatment. • Drug-drug interactions and possible cardiac conduction abnormalities should be monitored.

(*continued*)

Table 6.3 (Continued)

	• Monoamine oxidase inhibitor antidepressants (MAOIs) are very difficult to use in this setting because of drug-drug and drug-food interactions and should be avoided.
Psychostimulants	• d-amphetamine • modafinil • methylphenidate. • Can be very beneficial in treatment of associated fatigue, mild cognitive impairment, and anorexia, especially in advanced and end-stage disease settings.[20] • More rapid effect than standard antidepressants • Generally well tolerated but can have adverse effects on blood pressure
Antipsychotic drugs	• Steroid-induced mania will usually respond to decrease of steroid doses. • In some cases this is not feasible and the patient will require treatment with an antipsychotic drug such as olanzapine. (See Chapter 2, Table 2.6.)

Table 6.4 Selected Antidepressants Used in Cancer Patients

Drug	Starting Dose	Maint. Dose	Comments
Selective serotonin reuptake inhibitors			
citalopram (Celexa®)	10 mg/day	20–40 mg/day	Soltabs available
escitalopram (Lexapro®)	5–10 mg/day	10–20 mg/day	Possible nausea, sexual dysfunction
fluoxetine (Prozac®)	10–20 mg/day	20–60 mg/day	Long half-life; possible nausea, sexual dysfunction; strong CYP450-2 D6 inhibitor
paroxetine (Paxil®)	20 mg/day	20–60 mg/day	Possible nausea, sedation, strong CYP450-2D6 inhibitor
sertraline (Zoloft®)	25–50 mg/day	50–150 mg/day	Possible nausea
Tricyclic antidepressants			
amitriptyline (Elavil®)	25–50 mg qhs	50–200 mg/day	Maximal sedation; anticholinergic effects; useful for neuropathic pain
desipramine (Norpramin®)	25–50 mg/day	50–200 mg/day	Modest sedation; anticholinergic
nortriptyline (Pamelor®)	25–50 mg qhs	50–200 mg/day	Moderate sedation; useful for neuropathic pain

(*continued*)

Table 6.4 (Continued)

Other agents			
Ibupropion (Wellbutrin®)	100 mg/day	100–400 mg/day SR 450 mg/day XL; 300 mg XL	Activating; no reports of sexual dysfunction; risk of seizures in predisposed patients
duloxetine (Cymbalta®)	20–40 mg/day	60 mg/day	Possible nausea, dry mouth; may be useful for neuropathic pain
methylphenidate (Ritalin®)	5 mg (2.5 mg	10–60 mg/day qam, noon)	Activating; rapid effect possible; monitor blood pressure
mirtazapine (Remeron®)	15 mg qhs	15–45 mg qhs	Sedating, variable appetite-stimulant, antiemetic effects
Desvenlafaxine (Pristiq®)	50 mg daily	50–100 mg daily	Nausea
venlafaxine (Effexor®)	18.75–37.5 mg/day	75–225 mg/day	XR is daily; may be useful for neuropathic pain, hot flashes Nausea

See Chapter 2.

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Chapter 7

Cognitive Disorders

Alan D. Valentine

Introduction

Cognitive disorders are the second most common psychiatric disorders in oncology. The prevalence of delirium and dementia will increase as the general population ages and patients live longer with cancer. Delirium, also called acute confusional state or encephalopathy, contributes to increased morbidity and mortality, treatment costs, and stress in caregivers. In some situations (alcohol withdrawal delirium or the hyperactive form) it is a medical emergency. In the hypoactive form delirium is often not noticed or misdiagnosed. Delirium is more prevalent among the elderly, in high acuity and critical care patients, and those with end-stage disease. Dementia also predisposes to delirium. Complicating assessment and treatment are: imprecise nomenclature for cognitive deficits; sometimes subtle, inconsistent, and overlapping signs and symptoms; and multiple etiologies.

Delirium

See Boxes 7.1, 7.2, and 7.3, Tables 7.1, 7.2, and 7.3, and Figure 7.1.

Box 7.1 Clinical Features of Delirium

- Acute onset.
- Confusion, disorientation, impaired reality testing.
- Inability to pay attention (distractibility).
- Psychomotor agitation or retardation.
- Illusions (misperceptions) and hallucinations (usually visual).
- Diurnal variation (worse at night, early am).
- Sleep-wake cycle disruption.
- Lucid intervals.
- Autonomic dysfunction.
- Fear and anxiety.
- Delusions, especially with paranoid themes.

Adapted from American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders*, 5th ed. 2013.

Psychosomatic Medicine. 2nd ed. Washington DC: American Psychiatric Publishing; 2011:71–114.

Box 7.2 Risk Factors for Delirium

- Advanced age.
- Acuity of illness.
- History of cognitive impairment.
- Medication exposure.
- Sensory deprivation (hearing or vision loss).
- End organ damage.
- History of alcoholism.
- Untreated pain.

Adapted from Trzepacz PT, Meagher DJ, Leonard M. Delirium. In: Levenson JL, ed. *Textbook of Psychosomatic Medicine*. 2nd ed. Washington DC: American Psychiatric Publishing; 2011:71–114.

Box 7.3 Evaluation of the Delirious Patient

- History and chart review.
- Attention to medications administered and discontinued.
- Clinical interview and mental status examination.
- Physical examination; attention to neurological status.
- Laboratory assessment: complete blood count with differential and platelets, electrolytes, glucose, creatinine, BUN, O_2 saturation/arterial blood gasses, calcium, magnesium, albumin, liver function tests, thyroid function tests, RPR.
- Chest x-ray, EKG.
- Urine, blood cultures, cerebral spinal fluid studies, if indicated.
- Serum/urine drug and alcohol screens.
- As indicated: B12 and folate levels, serum drug levels, EEG, brain CT/MRI.
- Rating scales: Delirium Rating Scale, the Memorial Delirium Assessment Scale (cf. Chapter 12), and the Confusion Assessment Method.[2]

Adapted from Valentine AD, Bickham J. Delirium and subtstance withdrawal. In: Shaw AD, Riedel BJ, Burton AW, Fields AI, Feeley TW, eds. *Acute Care of the Cancer Patient*. Boca Raton, FL: Taylor and Francis; 2005:545–557.

Dementia

See Box 7.4, Tables 7.4, 7.5, and 7.6, and Figures 7.2a and b.

Table 7.1 Common Causes of or Contributors to Delirium

Infection	• Fever
Metabolic disturbance	• Hypoxia • Hypercapnia • Hyperglycemia • Hypo- or hyper-glycemia • Electrolyte disturbance • Impaired liver function • Impaired kidney function
Drugs	• Corticosteroids • Sympathomimetics • Anticholinergic medications • Opioid analgesics • Benzodiazepine sedative-hypnotics • Alcohol or drug intoxication
Drug withdrawal	• Especially alcohol and benzodiazapines
Cancer Therapies	• Chemotherapy agents (ifosfamide, methotrexate, cytosine arabinoside)[3] • Biotherapy agents, e.g. interleukin-2 (IL-2), interferon-alpha • Brain radiation (early, late-delayed syndromes)
Seizure-related	• Post-ictal • Complex partial status epilepticus
Disease-related	• Unrelieved pain • Direct and indirect effects of primary brain tumors • Central nervous system metastasis • Paraneoplastic syndromes (rarely) • Terminal stages of disease-may herald end of the disease trajectory[4]

Table 7.2 Selected Medications for Management of Delirium[6,7]

Antipsychotics[6]	• haloperidol† (Haldol®) 0.5–5 mg q 30 min–12 h PO, IM, IV • chlorpromazine† (Thorazine®) 25–100 mg q 4–12 h PO, IM, IV • risperidone (Risperdol®) 0.5–2 mg q 12 h PO • olanzapine (Zyprexa®) 2.5–5 mg q 12–24 h PO, IM34 • quetiapine (Seroquel®) 12.5–50 mg q 12 h PO
Benzodiazepines	• lorazepam† (Ativan®) 0.5–2 mg q 1–4 h PO, IM, IV ONLY IN THE SETTING OF ALCOHOL WITHDRAWAL DELIRIUM • midazolam† (Versed®) 0.003 mg/kg/h titrate to effect IV (per anesthesiologist)
Anesthetics	• propofol† (Diprivan®) 0.5 mg/kg/hr titrate to effect IV
Alpha Agonists	• dexmedetomidine (Precedex®) 1 mcg/kg over 10 min followed by continuous infusion 0.2–0.7 mcg/kg/hr • Intensive care setting: propofol and dexmedetomadine provide rapid sedation with prompt resolution of effect when discontinued. These foster sedation but do not improve cognition.

† may be administered by continuous infusion, usually in the intensive care setting.

Table 7.3 Delirium—Managing Safety and Environment

Prevent accidental self-harm	• Falls • Pulled IV lines • Pulled catheters
Close observation	• Family • Nurse • Sitter • Physical restraints if necessary
Physical agitation and physiological instability	• Admit to intensive care setting
Physical environment	• Adequate, but not excessive, sensory stimulation • Minimize disruption of sleep-wake cycle • Lights on during day • Avoid long periods of daytime sleep • Frequent reorientation • Address sensory deficits (eyeglasses, hearing aids) • Night: low-level background light and sound (music or television) maintained • Family presence is comforting
Caregiver concerns: frightened, embarrassed, ashamed, highly stressed, grief-stricken	• Communicate and educate about delirium and how it will be managed. • Family members should be encouraged to take breaks. May be better if distressed family members do not stay with the patient, especially overnight. • One-to-one monitoring by professional patient aides helps ensure patient safety and allows family members to get needed rest.

Adapted from Holland JC, Andersen B, Breitbart WS, et al. Distress management. *JNCCN*. Feb 1 2013;11(2):190–209.

Box 7.4 General Diagnostic Criteria for Dementia (Major Neurocognitive Disorders)

Significant decline from previous function or impairment of

- Complex attention
- Executive function
- Learning and memory
- Language
- Perceptual-motor skills
- Social cognition

Adapted from American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders*, 5th ed. 2013.

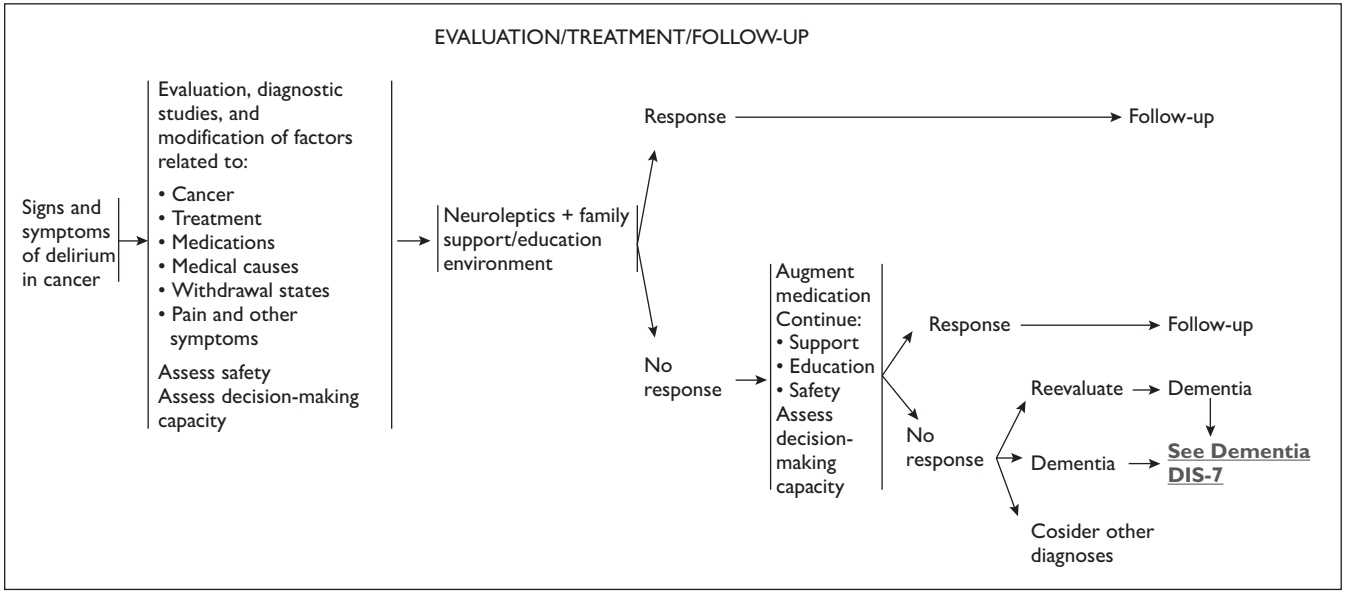

Figure 7.1 NCCN Distress Management Guidelines DIS-9—Delirium. Adapted from Holland JC, Andersen B, Breitbart WS, et al. Distress management. *JNCCN*. Feb 1 2013;11(2):190–209.

Table 7.4 Differential Diagnosis/Etiology of Apparent Dementia

Cancer/ Treatment-related	• Metastatic brain tumor • Systemic cancer (small cell lung cancer) • Leptomeningeal carcinomatosis • Paraneoplastic syndrome • Disease progression and complications • Nutritional deficiencies (cobalamin, niacin) • Small or large brain infarcts • Anemia
Hypoactive delirium	• Easily confused with dementia. (Patient is quietly impaired, but this is fluctuating and reversible.)
Severe depression	• Thinking is slow. Cognitive impairment concerns the patient, but formal cognition less impaired.
Antineoplastic therapies	• Antimetabolites, e.g., methotrexate, ifosphamide, cytosine arabinoside • Biological response modifiers, e.g., interferon, interleukin-2 (IL-2) • Brain radiation (late-delayed radiation toxicity)
Supportive-care drugs	• Central nervous system (CNS) depressants (opioid analgesics, benzodiazepine anxiolytics and hypnotics, anticonvulsants, and some antidepressants) may cause temporary cognitive impairment.
Primary dementias	• e.g., Alzheimer's disease, vascular cognitive disorders, others

Table 7.5 Evaluation for Dementia

Mental status and physical examination	• Emphasizes attention, concentration and memory function, language, executive function, and judgment[40] • Standardized screening instruments are recommended: Mini-Mental State Examination (MMSE) is most frequently used but is not sensitive to modest deficits • Physical examination emphasizes neurological function
Laboratory, imaging, and neuropsychological tests[8]	• Electrolytes, renal and hepatic function, endocrine function, and nutritional status (e.g., albumin, serum B12 and folate levels) • Neuroimaging should be used if CNS disease (tumor, cerebrovascular accident) is suspected • Neuropsychological testing: extremely useful in assessment of subtle deficits, executive function, differential diagnosis, treatment planning and treatment response, and, in some cases, rehabilitation
Capacity and safety	• Determine ability to make selected decisions and to understand consequences • Patient needs adequate supervision • Patient may have significant difficulties with informed consent process.

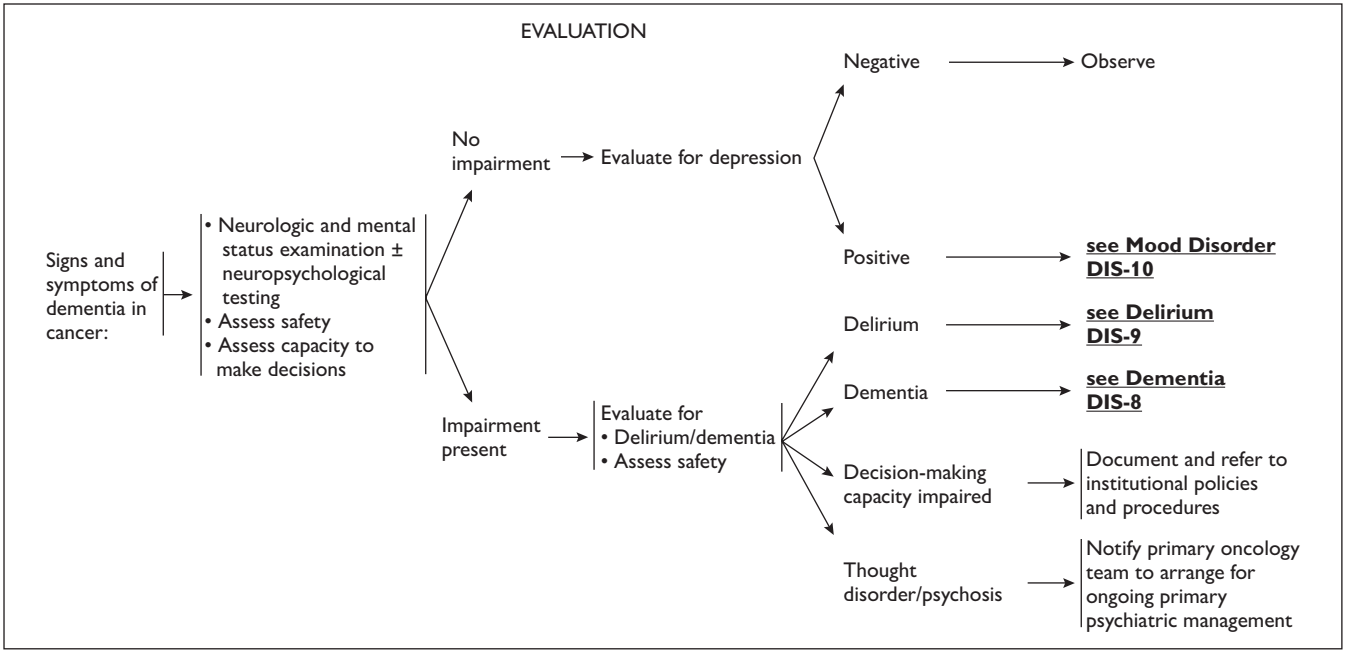

Figure 7.2 NCCN Distress Management Guidelines DIS-7, DIS-8—Dementia. Adapted from Holland JC, Andersen B, Breitbart WS, et al. Distress management. *JNCCN*. Feb 1 2013;11(2):190–209.

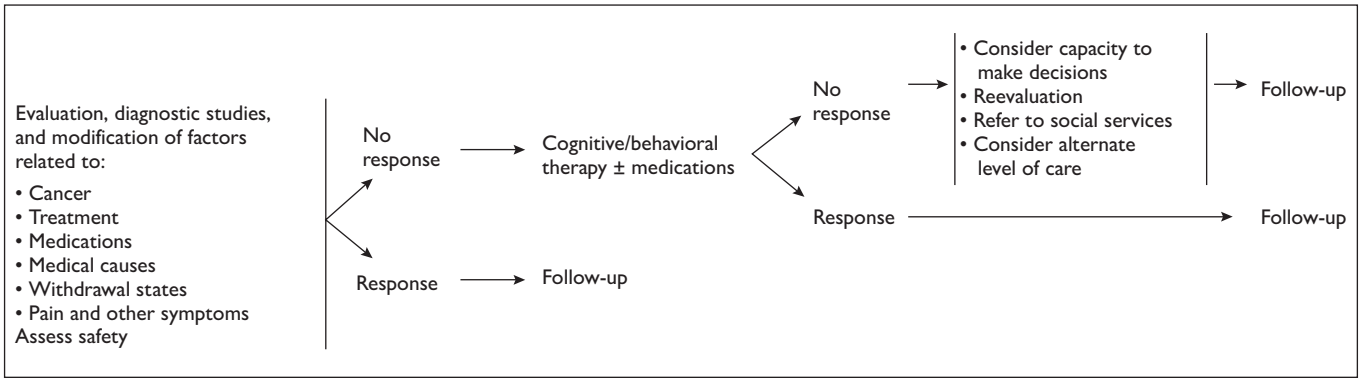

Figure 7.2 Continued

Table 7.6 Management of Dementia	
Pharmacotherapy	• Antidepressants • Antipsychotics use cautiously and not as primary treatment of agitation • Cholinesterase inhibitors (donazepil, galantamine, rivastigmine), NMDA antagonists (memantine)[9,10]
Behavior	• Use cognitive cues, reorientation, and maintenance of consistent environments • Some patients may benefit from cognitive rehabilitation
Caregivers	• Assessed regarding their abilities to cope with the demands involved in the care of a cognitively impaired patient • Caregiver support groups, and individual and family therapy • Referral to allied mental health specialists including psychiatrists, psychologists, and social workers if required care is beyond the capacity of the primary clinical service.

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Chapter 8

Substance Abuse

Kenneth L. Kirsh and Steven D. Passik

Introduction

For patients with pain, a remote or current history of drug abuse can complicate management of cancer and its psychosocial dimension. Barclay and colleagues found that over two-thirds of cancer patients in a high risk group, based on history, had an abnormal urine drug test (UDT), debunking the myth that (older) people with cancer pain are somehow immune to problems of substance abuse.[1] In order to manage cancer pain optimally, staff must understand the complex interface between drug abuse and therapeutic use of drugs that can be abused. Approximately one-third of the population in the United States has used illicit drugs and an estimated 6–15 percent have a substance use disorder of some type.[2,3] Only when the addiction problems and the patient's special needs are recognized can these patients be successfully treated.[4] See Box 8.1 and Table 8.1.

Box 8.1 Substance-Abuse Definitions

- Traditional definitions of addiction that include concepts of physical dependence or tolerance cannot be the model terminology for medically ill populations who receive drugs for legitimate medical purposes that can be abused.
- A chronic substance-use disorder (SUD) is characterized by "the compulsive use of a substance resulting in physical, psychological, or social harm to the user and continued use despite that harm."[5]
- Loss of control over drug use, compulsive drug use, and continued use despite harm are key features.
- The concept of "aberrant drug-related behavior" is a useful first step to operationalize the definitions of abuse and addiction, and to recognize the broad range of behaviors that may be considered problematic by prescribers.
- If drug-taking behavior in a medical patient can be characterized as aberrant, a differential diagnosis for this behavior can be explored.

Table 8.1 Differential Diagnosis of Aberrant Drug-Taking Attitudes and Behaviors

Addiction	"Use despite harm" concept.
Pseudoaddiction	Inadequate analgesia leading to acting out (i.e., self-medicating, using alcohol or street drugs, doctor shopping, etc.) to treat pain.
Other Psychiatric Diagnoses: • Encephalopathy • Borderline personality disorder • Depression • Anxiety	Many times, psychiatric illness or complications are reported as untreated pain. These symptoms may best be considered as "suffering" that adds to the pain complaints.
Criminal Intent	Small subset of criminals who are out solely for diversion and profit.

Substance Abuse Screening and Evaluation

In assessing the differential diagnosis for drug-related behavior, it is useful to consider the degree of aberrancy. The less aberrant behaviors (such as aggressively complaining about the need for medications) are more likely

Table 8.2 Prototypical Patients—Requirements for Pain Management

"Nice Little Old Lady" (uncomplicated patient)	• Minimal structure required due to lack of comorbid psychiatric problems and lack of connection to drug subculture • Routine medical management is generally sufficient • Suggested practice: 30-day supply of medications with liberal rescue dose policy • Monthly follow-ups • Education about safe drug storage to avoid diversion by family members and others
"The Chemical Coper"	• Behavior resembles that of addicts with a central focus on obtaining drugs • Needs structure, psychiatric input, and drug treatments that decentralize the pain medication from their coping • Reduce meaning of medications; undo conditioning; undo socialization around the drug • Best accomplished via psychotherapy focused on pain
"Addicted Patient" • Active abuser • Patient in drug-free recovery • Patient in methadone maintenance	• Requires the most structured approach, preliminarily demonstrated in chronic non-cancer pain management[6,7] • Requires frequent visits • Give patient a limited supply of medications • Drug choices should be tailored for long-acting opioids with little street value • Rescues offered judiciously • Implement use of urine toxicology screening and follow-up on results • Require patient to be in active recovery programs or psychotherapy

Table 8.3 Domains of Pain Management Outcome: The 4 As

Outcome Area	Explanation
Analgesia	• Actual amount of nociceptive relief experienced by the chosen opioid therapy. • Most obvious "A"—should not be considered the only important part of opioid therapy.
Activities of Daily Living	• Regardless of whether the patient is on opioid therapy or has become more active in their life as a result of opioid therapy. • Domains of interest include physical, social, emotional, and family functioning as well as improved sleep.
Adverse Side Effects	• Regardless of whether opioid therapy chosen has intolerable side effects for the patient. • Typical adverse effects include constipation, nausea, sedation, and mental clouding.
Aberrant Drug- Related Behaviors	• These are "ambiguous noncompliance behaviors." In essence, regardless of whether the patient is engaging in socially undesirable behaviors with their opioid therapy that may or may not be indicative of addiction. Problem behaviors include: • self-escalating doses, • hoarding medications, • seeking out multiple providers for prescriptions, • prescription forgery, • stealing prescription drugs.

Adapted from Passik SD & Weinreb HJ. Managing chronic nonmalignant pain: Overcoming obstacles to the use of opioids. *Advances in Therapy* 2000;17:70–80.

to reflect untreated distress of some type, rather than addiction-related concerns. The more aberrant behaviors (such as injection of an oral formulation) are more likely to reflect true addiction.

By making a distinction between patients with no histories of substance use and those who are prior addicts, as well as all the gradations between, chronic pain management can be tailored to the patient. To this end, we offer an oversimplified three-level conceptualization of prototypical patients and the amount of follow-up necessary for each. Although these are caricatures, they should be used to create mental prototypes as we see and assess chronic pain patients (Table 8.2). See also Table 8.3, Box 8.2, and Figures 8.1a and b.

Box 8.2 Two Key Rules of Good Opioid Pain Treatment

- The clinician must maintain an accepting and thoughtful attitude directed toward self-reports of pain.
- Prudent drug selection and the decision to use an opioid must be followed by titration of the dose to maintain a balance between effective analgesia and opioid side effects.

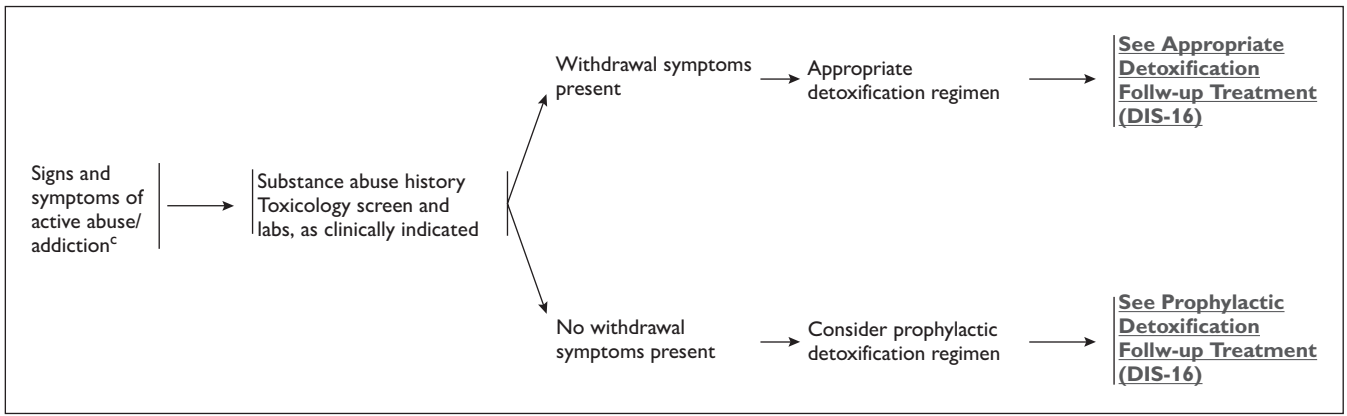

Figure 8.1 NCCN Distress Management Guidelines DIS-15, DIS-16—Substance Abuse. Reproduced with permission from the *NCCN 1.2005 Distress Management, The Complete Library of NCCN Clinical Practice Guidelines in Oncology [CD-Rom]*. Jenkintown, PA: ©National Comprehensive Cancer Network, May 2005.

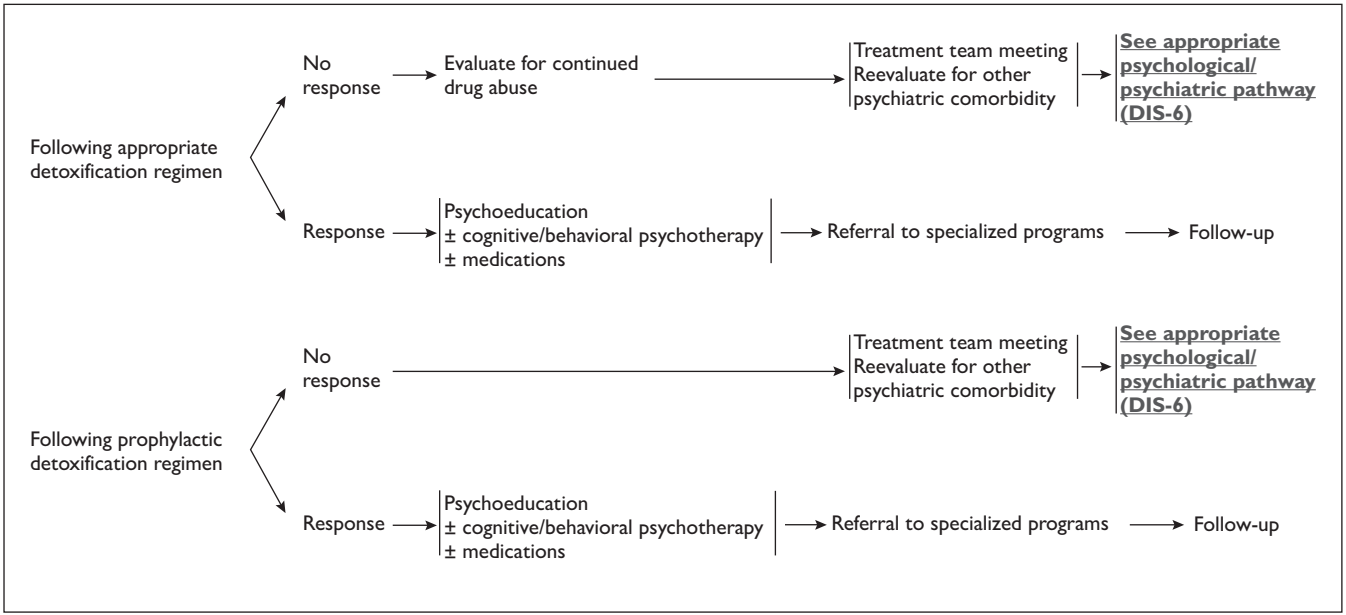

Figure 8.1 Continued

Box 8.3 Substance-Abuse Treatments

- Consider the unique pharmacological needs of addicts and then add the additional structures for recovery and psychosocial support to maximize the likelihood of a good outcome. These are complex patients who have two distinct diseases, substance use and cancer. Treatment with the assumption that anti-cancer treatment is most important and will "take care" of the second ailment of substance use is a common mistake that results in additional suffering for the patient.
- Connect with the patient, form a therapeutic bond, so that more reliable self-reports about drug use and trust can be maintained by both parties.
- Get the patients to articulate what help they most need.
- Pain reports should be followed by nonjudgmental, interested, and concerned assessment that recognizes the cry of distress.
- Drug addicts have often been described as alexithymic and many are unable to label distress more precisely than globally good or bad. It is often this trait that leads to global distress in the face of the negative emotions associated with pain and chronic illness.[10]
- Drug selection is often limited to sustained-release delivery to avoid supporting compulsive pill popping and/or use of opioids in the service of chemical coping.[4]
- Use a drug with a relatively lower street value for patients who are in recovery but who still maintain contact with the addiction subculture.
- The dose is titrated and continued for effect or toxicity, bearing in mind that addicts will often be highly tolerant and require large doses of opioids for pain control.

Interventions

Urine drug testing (UDT) can be a very useful tool for the practicing clinician, both to diagnose abuse problems and to monitor patients with an established history of abuse. UDT is an essential tool in monitoring adherence with prescribed medications as well as detecting any concomitant use of illicit or nonprescribed controlled substances. UDT can help in the diagnosis of substance use disorder (SUD) or of the triggering of a relapse of a preexisting SUD (by the stress of cancer and/or exposure to controlled substances). See Box 8.3.

Disclaimer

* The NCCN Guidelines are a work in progress that will be refined as often as new significant data becomes available.

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Chapter 9

Personality Disorders

Kenneth L. Kirsh and Steven D. Passik

Introduction

Personality disorders can be placed into 3 clusters: the odd or eccentric, the avoidant and paranoid, and the impulsive/self-centered.[1] Patients with personality disorders who face the anxiety and discomfort associated with medical treatment can have difficulties with medical caregivers, distort reality for emotional protection, or exhibit outright aggression and self-destructiveness.[2] See Box 9.1, Tables 9.1 and 9.2, and Figure 9.1.

Interventions

See Table 9.3.

Brief Intervention—The FRAMES Technique

Physicians can often feel unnerved by dealing with difficult patients who have personality disorders. They may begin to avoid interactions with the patients and feel that they always end in confrontations. The following FRAMES (**F**eedback, **R**esponsibility, **A**dvice, **M**enu, **E**mpathy, **S**elf-efficacy) technique is a handy way to structure contacts with these patients while delivering needed information in a structured way. See Table 9.4.

The Angry Patient

It is very common for patients with personality disorders to exhibit their frustrations and to take their anger out on staff and other healthcare

Box 9.1 Key Attributes of Personality Disorder

- A consistent pattern of behaviors that deviates markedly from the expectations of the individual's culture.
- Stable over time.
- Pervasive and inflexible.
- Has onset in adolescence or early adulthood.
- Thought to be poor coping or defense mechanisms used to buffer residual high stress that has not been overcome.
- Leads to distrust or impairment.

Table 9.1 Types of Personality Disorders and their Key Components

Paranoid	• Suspicious of others • Perceives attacks by others quickly • Categorizes people as an enemy or friend • Rarely confides in others • Unforgiving
Schizoid	• Flat affect • Tends to be solitary in nature • Indifferent to criticism and praise • Marked absence of close friends or relationships
Schizotypal	• Has magical thinking or odd beliefs • Exhibits anxiety in social situations • Paranoid ideation • Experiences unusual perceptions
Antisocial	• Lacks conformity to laws • Ignores obligations • Impulsive • Irritable and aggressive
Borderline	• Fears of abandonment • Suicidal behavior • Mood instability • Chronic feelings of emptiness
Histrionic	• Easily influenced • Rapidly shifting emotions • Theatrical emotions • Provocative or sexual behavior
Narcissistic	• Belief in being "special" • Lacks empathy • Arrogant • Sense of entitlement
Avoidant	• Self-view as inferior • Inhibited in new relationships • Tries to avoid embarrassment • Fear of rejection in social situations
Dependent	• Fears of being left alone • Lack of self-confidence • Requires reassurance when making decisions • Unlikely to express disagreement for fear of rejection
Obsessive-Compulsive	• Preoccupied with details • Tendency for perfectionism • Inflexible and stubborn • Unable to discard worthless objects
Personality Disorder NOS	• Reserved for disorders that do not fit any of the other categories • Can also describe people who exhibit features of several personality disorders without meeting full criteria for any one disorder

Adapted from Eysenck HJ. The definition of personality disorders and the criteria appropriate for their descriptions. *J Personal Dis*, 1987;1:211–219; Pinkofsky HB. Mnemonics for DSM-IV personality disorders. *Psychiatr Serv.* 1997;48:1197–1198.

Table 9.2 Personality Disorder Screening and Evaluation

Taking a psychological history	• Be straightforward in assessing a taboo subject. • Those with past history of psychological distress or personality disorders are more likely to suffer from both in the future. • Personality disorders are difficult to diagnose. • Significant comorbidity exists among personality disorders. • Comorbidity leads to difficulty in identifying a primary personality diagnosis. • Axis I disorders will complicate the identification of personality disorders.[5,6]
The physician's perspective	• The clinician with the personality-disordered patient does not need to make the diagnosis to be successful, but he or she must respond to the behavior. • Avoid stereotyping patients. • Be aware of your own feelings towards your patients, especially those who cause you to have emotional reactions.
Make a referral to a mental health provider: social worker, psychologist, or psychiatrist, depending on what is available in your community/ organization.*	• Cancer patients utilize mental health professionals more often than the general public (7.2% versus 5.7%).[7] • When a patient is challenging the resources of the physician and staff, it is a wise decision to enroll the aid of a mental health provider.

* It is always useful to establish a relationship in your practice with mental health providers. They should have an understanding and respect for the challenges of dealing with cancer patients who also have a comorbid personality disorder. Frequent feedback and discussion of the patient's status is helpful to all involved.

team members. The following tips are useful to prevent escalation of the patient's outbursts and escalation of staff anger and frustration. Ultimately, the goal is to help the patients to regain control and to learn to cope better with the issues that face them. See Box 9.2.

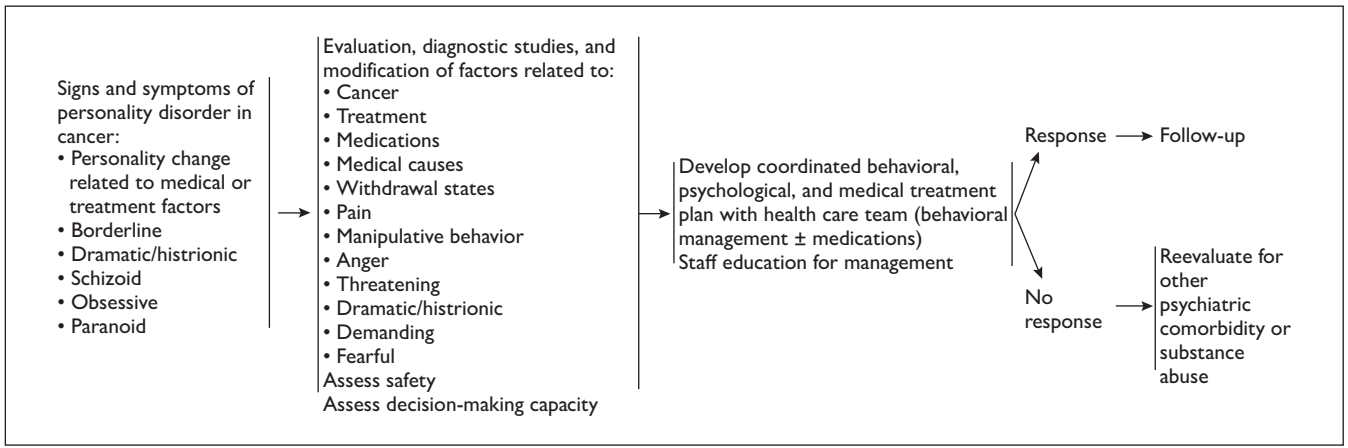

Figure 9.1 NCCN Distress Management Guidelines DIS-17—Personality Disorder. Reproduced with permission from the *NCCN 1.2005 Distress Management, The Complete Library of NCCN Clinical Practice Guidelines in Oncology [CD-Rom]*. Jenkintown, PA: ©National Comprehensive Cancer Network, May 2005.

Table 9.3 Personality Disorder Treatments

Management of the psychiatric disorder	• The therapist will work on limit setting and behavior modification with patient and staff. • The physician and other healthcare staff need to remember the frame of treatment and not be dragged into covering too many psychosocial issues and crises. • At times, it might be necessary to develop a signed agreement with the patient about this frame of treatment and what limits are in place with various members of the treating team.
Psychopharmacology	• Although personality disorder is best treated with psychotherapy and minimization of patient opportunity to manipulate care, there is a limited role for pharmacotherapy for specific issues. Consider the following to address features that might accompany the personality disorder: • mood disorders (antidepressants or lithium), • psychotic symptoms (antipsychotics), • anxiety symptoms (anxiolytics or antipsychotics), • possible expanded role for atypical antipsychotics.
Management of the impact of the patient's behavior on staff behavior	• Management of staff issues is critical. • Staff meetings with all those involved in the patient's care can be very helpful. • New responses to the patient's behaviors can be planned. • Maintain teamwork to manage difficult patients. • Avoiding staff splitting (i.e., do not let the patient "tell stories" about other staff members in order to create staff tension and distrust among the healthcare team).

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Table 9.4 The FRAMES Technique

Feedback	• Deliver information. • Make observations. • Be nonjudgmental, nonblaming. • Identify behaviors indicative of abuse and addiction; use checklists.
Responsibility	• Remind patients that they have a role in their treatment that may be hampered by their behavior: "I am concerned that you have two problems—your cancer and possibly a problem dealing with stress" (or substance abuse/depression/anxiety . . .). • Treatment for the problem is the patient's responsibility: • "Think about what I have said." • "Observe your behaviors." • "Make a decision about your treatment."
Advice	• Offer advice from the stance of expert medical opinion instead of reward/punishment or referent authority. • Use a neutral tone: "You could take your MRI to another physician and get more drugs, but I do not advise this."

(*continued*)

Table 9.4 (Continued)

Menu	• Offer multiple treatment choices (and identify whether there are multiple problems). • Assist with finding the best option for patients. • "You may not be ready now, but I will be here for you if you change your mind at some point in the future."
Empathy	• "I know that you have been through a lot." • Patients do not consciously choose to become addicted, adopt the sick role, become depressed, etc. • Use understanding, compassion, insight. • Without blame, empathy becomes easier.
Self-Efficacy	• "I know this is very hard, but I also know that you can do this." • Repeat any strengths patient has revealed by report and by your observations. • Ends intervention on a positive note. • Re-emphasize that responsibility belongs to the patient.

Box 9.2 Management of the Angry Patient

- Do not personalize.
- Listen to their perspective.
- Acknowledge their view.
- Check for accuracy, listen for feelings, and listen for the underlying problem.
- Empathize.
- Reframe.
- Focus on different interpretations rather than "truth" (i.e., we see things differently).
- Focus on responsibility rather than blame.
- Focus on intentions and outcomes rather than accusations.
- Be clear about your decisions.
- Share your perspective—with clarity.
- Ask for feedback.
- Problem-solve.
- Remember, not everyone will be happy.
- Retreat (find a colleague if necessary).
- Reevaluate.
- Re-approach.
- Make another appointment if necessary.

Disclaimer

* The NCCN Guidelines are a work in progress that will be refined as often as new significant data becomes available.

The NCCN Guidelines are a statement of consensus of its authors regarding their views of currently accepted approaches to treatment. Any clinician seeking to apply or consult any NCCN guideline is expected to use independent medical judgment in the context of individual clinical circumstances to determine any patient's care or treatment. The National Comprehensive Cancer Network makes no warranties of any kind whatsoever regarding their content, use or application and disclaims any responsibility for their application or use in any way.

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Section III

Physical Symptom Management

Chapter 10

Fatigue

David P. Yuppa and Ilana M. Braun

Introduction

Definition: A common persistent, subjective sense of tiredness related to cancer or cancer treatment that interferes with usual functioning.[1]

Prevalence: 70–100 percent of individuals with cancer experience fatigue.[2] Fatigue can persist for months to years after active cancer treatment ends.

Impact: On average, cancer patients describe fatigue as their most frequent, distressing, and debilitating cancer-related symptom.[3]

Screening: Several self-report measures of cancer-related fatigue exist. When relying on such measures, keep in mind that a patient may purposefully underreport fatigue out of a belief that nothing can be done to improve it, or for fear of cancer treatments being reduced or withheld (Table 10.1).

Patients who score as having mild fatigue can benefit from basic education about their fatigue. Education includes:

- Exploring beliefs and worries about fatigue.
- Correcting erroneous ones.
- Normalizing fatigue in the cancer setting.
- Identifying possible etiologies.
- Developing a plan for further monitoring patients who score as having moderate or severe fatigue warrant further assessment.

Further Assessment

Facets of fatigue include[4]:

- Onset.
- Pattern.
- Duration.
- Trend over time.
- Degree of interference with function.
- Exacerbating or alleviating factors.

In order to identify potentially modifiable risk factors, the history taker should explore premorbid fatigue levels as well as medical and mental health

Table 10.1 Self-Report Measures of Cancer-related Fatigue

Instrument	Number of Items	Domains	Timeframe	Answer Set	Cutoffs
NCCN scale[1]	1	"On a scale of 0 to 10, how would you rate your fatigue since your last visit?"	Since last medical visit	11 point (0–10) Likert scale	0: none 1–3: mild 4–6: moderate 7–10: severe Scores ≥ 4 warrant further evaluation
Brief Fatigue Inventory[4]	9	Severity, impact on daily functioning, mood, quality of life	Past 24 hours	11 point (0–10) Likert scale	0: none 1–3: mild 4–6: moderate 7–10: severe
Fatigue Symptom Inventory[5]	14	Severity, frequency, daily pattern, and interference with quality of life	Past week	11 point (0–10) likert scale	FSI average > 3 indicates clinically meaningful fatigue

Table 10.2 Some Modifiable Risk Factor for Cancer-related Fatigue

Risk Factor	Assessment
Anemia	CBC
Calcium abnormalities	Serum chemistry and vitamin D level, alkaline phosphatase; possible workup of bone metastases
Emotional distress	Mental health evaluation
Hypogonadism	Total and free testosterone, LH, FSH, prolactin
Infection	Vital signs, CBC with diff, chest x-ray, urine and blood cultures
Medication side-effect (i.e., steroids)	Review of medications, including over-the-counter ones and caffeine
Nutritional deficiencies	Metabolic panel
Sleep disturbances, including periodic leg movement disorder and sleep apnea	Sleep study
Thyroid abnormalities	Thyroid blood panel
Cancer treatment side effects	Cancer history review

Table 10.3 Evidence-Based Treatments of Cancer-related Fatigue

Intervention	Example
Exercise	Light aerobics, increasing as tolerated
CBT	Energy conservation, sleep hygiene
Medications	Methylphenidate, Modafinil

histories. Some potentially modifiable contributing factors are outlined in Table 10.2.

The criteria for diagnosing major depression include several symptoms that might overlap with fatigue, such as psychomotor retardation and changes in sleep habits. Distinguishing cancer-related fatigue from depression can be challenging. Depression is characterized by early morning fatigue[6] (patients awaken feeling tired) and often by prominent anhedonia (no longer find pleasurable activities enjoyable). Cancer-related fatigue tends to worsen as the day progresses,[7] and prominent anhedonia is absent from those suffering from cancer-related fatigue alone.

Once as many modifiable risk factors have been neutralized as is possible, evidenced-based treatments for cancer fatigue may be recommended. Table 10.3 lists the top three interventions for cancer-related fatigue in order of decreasing evidence based support.

Table 10.4 Cognitive Behavioral Therapy for Cancer-related Fatigue

Energy Conservation	• Self-monitor fatigue levels • Triage, postponing nonessential activities • Delegate to a support system • Schedule activities for times of anticipated peak energy • Avoid multitasking • Structure daily routines • Practice relaxation techniques such as meditation
Sleep Hygiene	• Avoid daytime naps • Avoid exercise, meals, or alcohol at bedtime • Limit caffeine to the morning hours and monitor overall caffeine intake • Make sure the bedroom is dark and quiet (i.e., if necessary, wear ear plugs and eye masks) • Sleep on a schedule • Avoid bright light exposure just before bed (including from electronic devices such as televisions and computers) • Limit use of bedroom to sleep, sex, and dressing • Get out of bed if you do not fall asleep in 15–20 minutes

Table 10.5 Medications for Cancer-related Fatigue

Name	Dosing	Benefits	Side Effects	Risks/ Considerations
Ritalin® (methylphenidate)[9,10]	Start 2.5–5 mg once to twice daily. Increase as tolerated	Improved energy, concentration, motivation	Constipation, anorexia (at higher doses; doses ≤ 20 mg/day may stimulate appetite), headaches, nervousness, tachycardia, hypertension, and insomnia	• May not be appropriate for patients with schizophrenia, bipolar disorder, delirium, and severe anxiety • Very inexpensive compared to modafinil • Extended release preparations associated with greater side effects and less tolerability[10]
Provigil® (modafinil)	100–400 mg/day	Improved wakefulness	Headache, insomnia, anxiety/ nervousness, diarrhea, and dyspepsia	• Recent data suggests most useful for severe fatigue and less so for mild-moderate[2] • May be particularly useful when methylphenidate is contraindicated or poorly tolerated • May be difficult to obtain insurance coverage

Adapted from Minton O, Richardson A, Sharpe M, Hotopf M, Stone P. Drug therapy for the management of cancer-related fatigue. *Cochrane Database Syst Rev.* Jul 7 2010;(7):CD006704.

Evidence-based fatigue treatments include:

- Exercise (conservative walking).
- Physical and occupational therapy (caution those with boney metastases or who are severely deconditioned.
- Cognitive behavioral therapy focused on principles of energy conservation.
- Sleep hygiene (Table 10.4).
- Energy conservation is the planned management of one's energy resources to prevent their depletion, and sleep hygiene, the deliberate creation of an environment maximally conducive to sleep.[8]

A treatment option with weaker evidence is stimulant medication. Two commonly used medications in this class are methylphenidate and modafinil (Table 10.5).

Disclaimer

* The NCCN Guidelines are a work in progress that will be refined as often as new significant data becomes available.

The NCCN Guidelines are a statement of consensus of its authors regarding their views of currently accepted approaches to treatment. Any clinician seeking to apply or consult any NCCN guideline is expected to use independent medical judgment in the context of individual clinical circumstances to determine any patient's care or treatment. The National Comprehensive Cancer Network makes no warranties of any kind whatsoever regarding their content, use or application and disclaims any responsibility for their application or use in any way.

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Chapter 11

Pain

Jennifer A. Shin

Introduction

Pain is one of the most common symptoms experienced by patients with cancer. It interferes with sleep, appetite, and mood; and contributes to anxiety, fatigue, and poor quality of life. There are numerous effective therapies to relieve pain, and it is imperative that clinicians caring for patients with cancer be skilled at evaluating and treating pain.

This chapter uses the National Comprehensive Cancer Network (NCCN) Guidelines on Adult Cancer Pain as a framework for a comprehensive approach to pain in the cancer patient.[1] See Tables 11.1–11.9.

Disclaimer

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Table 11.1 Pain Screening and Evaluation

Pain-Intensity Rating

Pain is the fifth vital sign and should be assessed at each clinical encounter.

At each visit, ask patients about "current" pain in addition to "worst" pain, "usual" pain, and "least" pain in the last 24 hours. For each pain-intensity rating, the following scales can be used:

- **Numerical scale:** "How much pain are you having, on a scale of 0 (no pain) to 10 (worst pain you can imagine)?"
- **Categorical scale:** "What word best describes your pain?"

None (0), Moderate (4–6), Mild (1–3), Severe (7–10)

Comprehensive Pain Assessment

- **Pain intensity:** In addition to asking about "current," "worst, "usual," and "least" pain in the last 24 hours, ask about "worst pain in past week," "pain at rest," and "pain with movement."
- **Location** of the pain.
- **Quality** of the pain: Ask the patient to describe what the pain feels like.
  - Aching, stabbing, throbbing, or pressure suggests somatic pain (skin, bone, muscle).
  - Gnawing, cramping, aching, or sharp suggests visceral pain (organs, viscera).
  - Sharp, tingling, burning, or shooting suggests neuropathic pain.
- **Pain history**
  - When did it start?
  - How long has it been present?
  - Has it changed in any way?
  - Is it intermittent or constant?
  - Do you have other symptoms?
  - What makes the pain worse? Better?
  - What has been tried to treat the pain? Has it helped? Are there side effects? What are the scheduled doses?
- **Medical history:** Pain should be evaluated in the context of cancer and other significant medical illnesses, as well as current medications, including over-the-counter and complementary substances.
- **Psychosocial history:** Evaluate level of distress, psychiatric disorders, history of substance abuse, and level of support from others.
  - **Support:** Who does the patient have for support? Are family and others available? Is anyone helping to manage the pain and medications at home?
  - **Distress:** How much distress is the pain causing? Is the pain bearable or unbearable? Does the diffuseness of the distress suggest emotional suffering rather than nociception? What does the patient think that the pain means (e.g., tumor spread)? What are cultural, spiritual, or religious concerns about pain?
  - **Psychiatric illness:** *Anxiety*—Conditioned anticipatory anxiety may begin before dressing changes or painful walking. Patients may seek analgesics to treat anxiety or insomnia rather than pain. (see Chapter 5, Anxiety). *Depression*—Clinical depression may exacerbate pain symptoms. Additionally, patients in pain are more likely to have secondary depression. Assess history of depression and current depressive symptoms (sleep disturbance; loss of interest; guilt/hopelessness/helplessness; low energy; concentration difficulties; appetite changes; psychomotor retardation; suicidal ideation). (see Chapter 6, Mood disorders). *Substance Abuse*—Patients with psychiatric or opiate abuse histories may require higher doses due to tolerance. Use caution in patients with a history of drug dependence or alcoholism (see Chapter 8, Substance Abuse).

(*continued*)

Table 11.1 (Continued)

- **Physical examination.**
- **Laboratory studies:** Assess renal and hepatic function, which may impact the choice and dosing of pain medications.
- **Imaging studies:** Assess for disease progression.

Risk Factors for Undertreatment

- Children; elderly; women; minorities (language, cultural barriers).
- History of substance abuse, psychiatric illness, neuropathic pain.
- Fear of addiction. When opioids are used to treat cancer pain in a patient without a history of addiction, addiction is rarely a problem.

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Table 11.2 Pain Treatment

Initial Treatment of Acute Pain	• Screen for pain at each visit and ask patients for a pain intensity rating (Table 11.1).
	• If the pain score is greater than 0, evaluate with the comprehensive pain assessment (Table 11.1).
	• Treat underlying causes of pain while providing analgesia.
	• Initiate opioids based on the intensity of the pain (for pain scores ≥ 4 and may consider for pain scores 1–3). Rapid titration should occur in patients with severe pain (pain scores 7–10).
	• Consider whether the patient is opioid-naïve or opioid-tolerant:
	  • *Opioid-naïve* = not chronically receiving opioids on a daily basis
	  • *Opioid-tolerant* = receiving ≥ morphine 60 mg PO daily, ≥ oxycodone 30 mg PO daily, ≥ hydromorphone 8 mg PO daily, or an equianalgesic dose of another opioid for ≥ 1 week
	  • *For opioid-naïve patients*, administer 5–15 mg of oral short-acting morphine sulfate. *For opioid-tolerant patients*, administer a short-acting oral opioid dose equivalent to 10–20% of the total opioid dose taken in the last 24 hours. Reassess after 60 minutes.
	  • If pain is unchanged or worse, increase the dose by 50–100% and reassess after 60 minutes.
	  • If pain score decreases to 4–6, repeat the same dose and reassess after 60 minutes.
	  • If pain score decreases to 0–3, continue this effective dose as needed and reassess over the next 24 hours.
	• Intravenous (IV) medications should be considered in severe pain, if the pain score remains unchanged after 2–3 cycles of opioids, or if the patient cannot tolerate PO.
	  • *For opioid-naïve patients*, administer 2–5 mg of IV morphine sulfate. *For opioid-tolerant patients*, administer IV opioid dose equivalent to 10–20% of the total opioid dose taken in the last 24 hours. Reassess after 15 minutes and follow the algorithm above.

(*continued*)

Table 11.2 (Continued)

	For all patients with pain: • Consider using or adding nonsteroidal anti-inflammatory drugs **(**NSAIDs) or acetaminophen (Table 11.7). • Consider adding adjuvant analgesics for specific pain syndromes (Table 11.7). • Utilize strategies for managing side effects from opioids such as prophylactic bowel regimens (stimulant laxative ± stool softener, polyethylene glycol) and antiemetics. • Monitor and adjust medications for sedation and delirium (see Chapter 7, Cognitive Disorders). • If these symptoms are attributable to opioids (i.e., other underlying causes ruled out), consider changing the opioid or treating the symptoms. For sedation, consider caffeine, methylphenidate (Ritalin®), dextroamphetamine (Dexedrine®), modafinil (Provigil®). For delirium, consider haloperidol (Haldol®), olanzapine (Zyprexa®), risperidone (Risperdal®). • Provide education and psychosocial support.
Conversion to Longer Acting Opioids	• Once pain is stable on immediate-release opioids, consider switching to longer-acting opioids. • Calculate dose based on 24-hour requirement and prescribe an equivalent dose of extended-release morphine sulfate (MS Contin®), extended release oxycodone hydrochloride (OxyContin®), or transdermal fentanyl (Duragesic®). • Provide breakthrough (i.e., rescue) doses of short-acting opioids for breakthrough pain. Use immediate release forms of the long-acting opioid whenever possible and allow breakthrough doses of 10–20% of the total 24-hour dosage every one hour PRN. If using transdermal fentanyl (Duragesic®), the 24-hour oral morphine equivalent is twice the hourly dose of fentanyl in mcgs.
Subsequent Pain Management	• Continue screening for pain and quantifying pain intensity. • If pain appears to be worsening, evaluate with the comprehensive pain assessment. • Treat underlying causes of pain while providing analgesia. • If the patient is not on opioids: consider starting opioids and titrating the dose according to the intensity of pain. • If the patient is taking long and short-acting (breakthrough) opioids and is using more than 3–4 breakthrough doses daily for persistent pain: increase the long-acting dose by an amount equal to 50–100% of the total amount of breakthrough medication used in 24 hours. Recalculate the breakthrough dose based on this amount (10–20% of the total 24-hour dosage every one hour PRN).

(*continued*)

Table 11.2 (Continued)

	• If the pain is not controlled or there are undesired side effects from the current therapy: consider opioid rotation (i.e., switching to a new opioid). To calculate the dose of the new opioid: (1) Determine the amount of current opioid taken in a 24-hour period that effectively controls pain. (2) Calculate the equianalgesic dose of the new opioid (Table 11.4). (3) If the pain was effectively controlled, REDUCE the equianalgesic dose of the new opioid by 25–50% to allow for incomplete cross-tolerance between different opioids. -or- If the pain was not effectively controlled, may begin with 100% to 125% of the equianalgesic dose. (4) Divide the total daily dose of the new opioid by the number of doses per day to determine the individual dose.
Adjuvant Treatments for Cancer Pain Syndromes	**Bone pain:** In addition to trials of NSAIDS and opioids, other interventions are available for bone pain. If the pain is diffuse, bisphosphonates, hormonal or chemotherapy for responsive tumors, glucocorticoids, and/or systemic administration of radioisotopes is beneficial. If the pain is localized, consider local radiation therapy or nerve block. For resistant pain, consider referral to anesthesia, orthopedic or neurosurgery. **Pain from inflammation:** Pain from inflammation may be treated with NSAIDS or glucocorticoids, which have anti-inflammatory properties. **Nerve compression or inflammation:** A trial of glucocorticoids may be considered. **Neuropathic pain:** When cancer-related neuropathy is only partially responsive to opioids, antidepressants and anticonvulsants are first-line adjuvant analgesics (Table 11.8).

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Table 11.3 Consultations for Improved Pain Management

Interventional Consultation	• Consider a referral for:
	  • Pain not adequately controlled by analgesics or if the side effects have become intolerable
	  • Pain localized to an area that would be relieved by a nerve block (e.g., celiac plexus block in pancreatic cancer)
	• Common procedures include the following: regional infusions to epidural, intrathecal, or regional plexus; neurodestructive procedures for well-localized pain syndromes; percutaneous vertebroplasty/kyphoplasty; neurostimulation procedures for cancer-related symptoms; and radiofrequency ablation for bone lesions.

(*continued*)

Table 11.3 (Continued)

Palliative Care Consultation	• Consider a referral for:
	  • Management of symptoms and pain that are refractory to initial treatment
	  • Adjustment of drugs and doses beyond the expertise of the provider (e.g. initiating methadone, ketamine, mucosal fentanyl preparations)
	  • Assistance in managing complicated psychosocial issues or clarifying goals of care

Non-pharmacological Consultation	• Physical treatments include heat or ice; ultrasonic stimulation; transcutaneous electrical nerve stimulation (TENS); acupuncture; and massage. • A physical therapy consultation might be useful for better positioning; strengthening compensatory muscle groups; and supplying bed, bath, and walking supports. Cognitive treatments include relaxation training; distraction; hypnosis; and cognitive-behavioral therapy (see Chapter 3, Nonpharmacological Interventions). • A referral to a psychiatrist, psychologist, or social worker may be particularly helpful in evaluating and treating mood and anxiety symptoms related to the pain, delirium, sedation, and other mental status changes.

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Table 11.4 Dose Conversion Table for Selected Opioids Adapted from NCCN Guidelines

Opioid *	Oral (PO) Dose	Intravenous (IV) Dose	Factor (IV to PO)	Duration of Action
morphine	30 mg	10 mg	3	3–4 h
hydromorphone (Dilaudid®)	7.5 mg	1.5 mg	5	2–3 h
levorphanol (Levo-Dromorane®)	4 mg	2 mg	2	3–6 h
oxycodone (OxyFast®)	15–20 mg	–	–	3–5 h
hydrocodone (Vicodin®)	30–45 mg	–	–	3–5 h
oxymorphone	10 mg	1 mg	10	3–6 h
codeine	200 mg	–	–	3–4 h
fentanyl **				
methadone ***				

* Side effects include constipation, nausea, and vomiting, drowsiness, sedation, confusion, respiratory depression and hypotension.

** Titrate with caution in patients with risk factors (renal/hepatic dysfunction, chronic lung disease, upper airway compromise, sleep apnea, and poor performance status).*

** See Table 11.5 for dosing of transdermal fentanyl.

*** See Table 11.6 for dosing of methadone.

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Table 11.5 Dose Conversion from Oral Morphine to Transdermal Fentanyl Adapted from NCCN Guidelines

To Convert Oral Morphine to Transdermal Fentanyl*:	Oral (PO) Morphine	Transdermal Fentanyl (Duragesic®)
(1) Calculate the 24-hour daily oral morphine dose (Table 11.4). Other opioids should be converted to oral morphine equivalents. (2) Based on this 24-hour daily oral morphine dose, choose the transdermal fentanyl dose (mcg/h) from this table. Fentanyl patches are usually replaced q72 hours, although some patients may require replacement q48 hours. (3) Use a short-acting opioid for breakthrough pain (e.g. morphine, oxycodone, hydromorphone). The initial patch may take 12–24 hours to take full effect; advise patients to take breakthrough pain on a scheduled basis during this time. **Use only in patients tolerant to opioid therapy.* **Fentanyl is NOT recommended for unstable pain that may require frequent dose changes.*	30 mg/day 60 mg/day 120 mg/day 180 mg/day 240 mg/day	12 mcg/h 25 mcg/h 50 mcg/h 75 mcg/h 100 mcg/h

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Table 11.6 Dose Conversion from Oral Morphine to Oral Methadone Adapted from NCCN Guidelines

To Convert Oral Morphine to Oral Methadone*:	Oral (PO) Morphine	Dose Conversion Ratio (PO morphine: PO methadone) **
(1) Calculate the 24-hour daily oral morphine dose (Table 7.4). Other opioids should be converted to oral morphine equivalents. (2) Based on the 24-hour daily oral morphine dose, choose the dose conversion ratio from this table and calculate the 24-hour daily oral methadone dose. (3) Reduce this calculated 24-hour daily oral methadone dose by 25–50% (to account for incomplete cross-tolerance and patient variability). (4) Divide this 24-hour daily oral methadone dose into 3–4 daily doses. (5) Use a short-acting opioid for breakthrough pain (e.g., morphine, oxycodone, hydromorphone).	30–90 mg 91–300 mg > 300 mg	4:1 8:1 12:1

(*continued*)

Table 11.6 (Continued)

**Methadone has a long, variable half-life and necessitates frequent and careful monitoring.* **Methadone is associated with QTc prolongation. Recommend ECG monitoring if dose >100 mg/day, patient has a history of cardiac disease or is taking other medications that may prolong the QTc.* **Methadone has many drug-drug interactions.* **Consult with a pain or palliative care specialist if you are unfamiliar with methadone prescribing.*		*** Conversion ratios should NOT be used to convert from methadone to other opioids.*

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Table 11.7 Common Nonopioid Analgesics

Medication	Usual Dose (PO unless otherwise indicated)	Side Effects
acetaminophen (Tylenol®)	650 mg every 4 hours or 1000 mg every 6 hours (maximum daily dose = 4 g in adults with normal liver function and <2 g/day in adults with cirrhosis)	Hepatotoxicity, hepatic failure
Nonsteroidal Anti-Inflammatory drugs (NSAIDs)		
ibuprofen (Motrin®)	400–600 mg every 6–8 hours (maximum daily dose = 3,200 mg)	Epigastric pain, gastric or duodenal ulcers, GI bleeding, nausea and vomiting, nephrotoxicity (caution in patients with renal impairment)
naproxen (Aleve®)	500 mg then 250 mg every 6–8 hours (maximum daily dose = 1,500 mg)	Same as above
ketorolac (Toradol®)	15–30 mg IV every 6 hours (maximum = 5 days of treatment)	Headache; GI bleeding, nephrotoxicity
Non-Acetylated Salicylates		
choline and magnesium salicylate combinations (Trilisate®)	1.5–4.5 g/day in 3 divided doses	Nausea, GI bleeding, tinnitus, hearing impairment, hepatotoxicity (caution with liver disease, avoid in severe liver disease)
salsalate (Salflex®)	2–3 g/day in 2–3 divided doses	Same as above
COX-2 Selective Agents		
celecoxib (Celebrex®)	100 mg daily to twice daily	Nephrotoxicity; adverse cardiovascular effects with long-term use

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Quill TE, Holloway RG, Shah MS, Caprio TV, Olden AM, Storey CP. Pain management. In: *Primer of Palliative Care.* 5th ed. Glenview: American Academy of Hospice and Palliative Medicine; 2010:11–38.

Table 11.8 Adjuvant Analgesics for Neuropathic Pain

Class	Medication	Starting Dose	Usual Dose	Side Effects
Tricyclic antidepressants	amitriptyline (Elavil®)	10–25 mg qhs	10–200 mg qhs	Constipation, dry mouth, blurred vision, sedation, urinary retention, orthostatic hypotension, tachycardia, cardiac conduction changes NOTE: amitriptyline has more evidence for benefit but greater anticholinergic effect
	desipramine (Norpramin®)	10–25 mg qhs	50–150 mg qhs	
	nortriptyline (Pamelor®)	10–25 mg qhs	50–150 mg qhs	
Serotonin and Norepinephrine Reuptake Inhibitors (SNRI) Antidepressants	venlafaxine (Effexor®)	37.5–75 mg/day	75–225 mg/day	Constipation, nausea and vomiting, anorexia, somnolence, sweating, sedation, sexual dysfunction, hypertension with venlafaxine
	duloxetine (Cymbalta®)	20–30 mg daily	60–120 mg daily	
Anti-convulsants	gabapentin (Neurontin®)	100–300 mg qhs	900–3600 mg/day in 2–3 divided doses	Sedation, ataxia, blurred vision, peripheral edema
	pregabalin (Lyrica®)	50 mg tid	100 mg tid (maximum daily dose = 600 mg)	Sedation, ataxia, dizziness, peripheral edema, headache
	lamotrogine (Lamictal®)	25 mg qhs (increase daily dose by 25 mg every 2 weeks and no faster)	50–200 mg/day	Ataxia, sedation, blurred vision, headache, nausea, rash, Stevens-Johnson Syndrome. Rash related to rate of increase.
	carbamazepine (Tegretol®)	50–100 mg bid	50–1200 mg/day	Nausea and vomiting, sedation, blurred vision, nystagmus, rash, blood pressure changes, nephrotoxicity, SIADH, bone marrow depression, leukocytosis
Topical analgesics	lidocaine patch (5%) (Xylocaine®)		Up to 3 patches at once, no more than 12 hours in a 24 hour period	Localized erythema (minimal systemic absorption)

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Dworkin RH, Backonja M, Rowbotham MC, et al. (2003). Advances in neuropathic pain. *Arch Neurol.* 2003;60:1524–1534.
Quill TE, Holloway RG, Shah MS, Caprio TV, Olden AM, Storey CP. Pain management. In: *Primer of Palliative Care,* 5th ed. Glenview: American Academy of Hospice and Palliative Medicine; 2010:11–38.

Table 11.9 Cognitive Interventions for Pain Management	
Relaxation Training	Relaxation techniques include imagery (described below) or progressive muscle relaxation. In progressive muscle relaxation, the patient actively tenses and then relaxes specific muscle groups. Usually starts with feet, progressing systematically to the muscles of the head.
Imagery	Relaxation with concentration on a pleasant mental image, such as the patient's favorite place. Imagery may be more successful if all senses are involved in imagining the scene.
Distraction	Focusing attention away from pain and onto another thought or activity such as listening to music.
Hypnosis	Deep relaxation followed by imagery and suggestions such as transforming the pain into another sensation like warmth.
Biofeedback	Using physiological monitors, such as heart rate and blood pressure monitors and electromyogram (EMG), to train patients to better control their pain through relaxation.
Cognitive-behavioral Therapy	Re-framing thoughts about pain and distress; problem solving the difficulties caused by pain; finding alternative coping strategies that are more adaptive; and treatment of anxiety and depressive symptoms that may be contributing to pain.

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1. *NCCN 2.2013 Adult Cancer Pain*. Jenkintown, PA: ©National Comprehensive Cancer Network, February 2013. To view the most recent and complete version of the guidelines, go online to www.nccn.org.*
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Chapter 12

Nausea and Vomiting

Isabel Schuermeyer

Introduction

Nausea and vomiting are very common symptoms in cancer patients. In fact, many patients have this as their greatest fear of receiving chemotherapy. Despite many improvements in anti-emetic treatments, nausea and vomiting remain quite common and can affect up to 70–80 percent of patients receiving chemotherapy. Typically these medicines are more effective at treating vomiting than nausea.

In the evaluation of the patient it is important to obtain a thorough history. Specific questions should target the pattern of the nausea and vomiting. For example, asking if it happens at the same time of the day and about the first episode. These questions will help determine if the nausea and vomiting are chemotherapy induced, radiation induced or noncancer treatment related nausea. It is be very important to determine the etiology, as this will direct treatment.

Nausea and vomiting can affect a patients' quality of life and can even influence their decision to stop chemotherapy. Anticipatory nausea and vomiting can persist for years after treatment. Furthermore, nausea and vomiting can cause medical complications such as metabolic imbalances, poor nutrition, aspiration pneumonia, esophageal tears, and surgical-wound dehiscence.

This chapter utilizes the National Comprehensive Cancer Network (NCCN) guidelines for Antiemesis as a framework for approaching the clinical problem of nausea and vomiting. The three broad categories of nausea are:

1. Chemotherapy induced.
2. Radiation induced.
3. Non-treatment-related nausea.

See Tables 12.1–12.5.

Treatments for Nausea and Vomiting

See Tables 12.6–12.8.

Table 12.1 Chemotherapy Induced Nausea

Type of Nausea	Risk Factors	Treatments
Acute Onset • Develops within 24 hours of chemotherapy	• Emetogenic potential of chemotherapy agent • Previous episodes of nausea and vomiting with chemotherapy • Younger age • Female • History of motion sickness • Expectation of having nausea • Less likely in those with history of alcoholism and those that are chemotherapy naïve	• Prophylactic treatment with anti-emetics
Delayed Onset • Develops 1–5 days after the chemotherapy treatment	• More likely with cisplatin, carboplatin, cyclophosphamide, and doxorubicin • Younger age • Female	• Prophylactic treatment with combination of metoclopramide (Reglan®), steroids, and a 5-HT3 antagonist • Possible addition of NK1 antagonist. Continuation of antiemetics for 7 days after chemotherapy
Anticipatory • Occurs before patients receive their next chemotherapy treatment (incidence of 18–57%)	• Younger • Prior negative experience with chemotherapy	• Pretreatment with lorazepam • Behavioral management, relaxation, distraction, hypnosis, systematic desensitization
Breakthrough • Occurs in subsequent treatments despite prophylactic treatment that initially was effective • May require a "rescue" with other antiemetic agents	• Same as for acute	• Add an additional agent from another drug class • Routine dosing, instead of prn • Avoid PO administration and use IV or rectal • Assess for other possible etiologies (see Table 12.5)
Refractory • Occurs when prophylaxis has failed	• Same as for acute	• Neuroleptics

Table 12.2 Risks of Emesis for Specific IV Chemotherapy Agents

High Risk (> 90% frequency of emesis)	Carmustine > 250 mg/m^2 Cisplatin Cyclophosphamide > 1,500 mg/m^2 Dacarbazine	Doxorubicin ≥ 60 mg/m^2 Epirubicin > 90 mg/m^2 Ifosfamide ≥ 2 g/m^2 per dose Mechlorethamine Streptozocin
Moderate Risk (30–90% frequency of emesis)	Aldesleukin > 12–15 million IU/m^2 Amifostine > 300 mg/m^2 Arsenic trioxide Azacitidine Bendamustine Busulfan Carboplatin Carmustine < 250 mg/m^2 Clofarabine Cyclophosphamide < 1,500 mg/m^2	Cytarabine > 200 mg/m^2 Dactinomycin Danorubicin Doxorubicin < 60 mg/m^2 Epirubicin ≤ 90 mg/m^2 Indarubicin Ifosfamide < 2 g/m^2 per dose Interferon alfa ≥ 10 million IU/m^2 Irinotecan Melphalan Methotrexate ≥ 250 mg/m^2 Oxaliplatin Temozolomide
Low Risk (10–30% frequency of emesis)	Ado-trastuzumab emtansine Amifostine ≤ 300 mg/m^2 Aldesleukin <12 million IU/m^2 Brentiuximab vedotin Cabazitaxel Carfilzomib Cytarabine 100–200 mg/m^2 Capecitabine Docetaxel Doxorubicin (liposomal) Eribulin Etoposide Fluorouricil (5-FU) < 1,000 mg/m^2 Floxuridine Gemcitabine Interferon alpha > 5 < 10 million IU/m^2	Ixabepilone Methotrexate > 50 mg/m^2 < 250 mg/m^2 Mitomycin Mitoxantrone Omacetaxine Paclitaxel Paclitaxel-albumin Pemetrexed Pentostatin Pralatrexate Romidepsin Thiotepa Topotecan Ziv-aflibercept

(*continued*)

Table 12.2 (Continued)

Minimal Risk, Level 1 (<10% frequency of emesis)	Alemtuzumab Asparaginase Bevacizumab Bleomycin Bortezomib Cetuximab Cladribine Cytarabine <100 mg/m^2 Decitabine Dexrazoxane Denileukin diftitox Fludarabine Interferon-alpha ≤ 5 million IU/m^2	Ipilimumab Methotrexate ≤ 50 mg/m^2 Nelarabine Ofatumumab Panitumumab Pegaspargase Peginterferon Pertuzumab Rituximab Temsiroliumus Trastuzumab Valrubicin Vinblastine Vincristine Vincristine (liposomal) Vinorelbine

Adapted from NCCN 1.2014 Antiemesis, NCCN Clinical Practice Guidelines in Oncology ©National Comprehensive Cancer Network, May 2013. To view the most recent and complete version of the guidelines, go online to www.nccn.org.*

Table 12.3 Risks of Emesis for Specific Oral Chemotherapy Agents

Moderate to High	Altretamine Busulfan (≥4 mg/day) Crizotinib Cyclophosphamide (≥100 mg/m^2/day) Estramustine Etoposide	Lomustine (single day) Mitotane Procarbazine Temozolomide (>75 mg/m^2/day) Vismodegib
Minimal to Low	Axitinib Bexarotene Bosutinib Busulfan <4 mg/day Cabozantinib Capecitabine Chlorambucil Cyclophosphamide (<100 mg/m^2/day) Dasatinib Dabrafenib Erlotinib Everolimus Fludarabine Gefitinib Hydroxyurea Imatinib Lapatinib Lenalidomide Melphalan	Mercaptopurine Methotrexate Nilotinib Pazopanib Pomalidomide Ponatinib Regorafenib Ruxolitinib Sorafenib Sunitinib Temozolomide (≤75 mg/m^2/day) Thalidomide Thioguanine Topotecan Trametinib Tretinoin Vandetanib Vemurafenib Vorinostat

Adapted from NCCN 1.2014 Antiemesis, NCCN Clinical Practice Guidelines in Oncology ©National Comprehensive Cancer Network, May 2013. To view the most recent and complete version of the guidelines, go online to www.nccn.org.*

Table 12.4 Radiation-Induced Nausea and/or Vomiting

Higher risk for:
• Those with whole-body or upper-abdominal radiation therapy
• Those with larger daily fractional doses, larger total doses and larger amounts of irradiated tissue
• Total body irradiation

Table 12.5 Causes of Non-Treatment-Related Nausea and Vomiting

• Partial or complete bowel obstruction
• Vestibular dysfunction
• Brain metastases
• Electrolyte imbalance: hypercalcemia, hyperglycemia, hyponatremia
• Uremia
• Concomitant medications, e.g., opiates
• Gastroparesis, tumor or chemotherapy-induced
• Gall bladder disease
• Psychophysiologic: Usually is an anxiety disorder or major depression with somatic symptoms. If patients do not respond to usual treatment, consider a referral to a mental health clinician, especially if there are anxious or depressive symptoms. Although many antidepressants, particularly the selective serotonin reuptake inhibitors (SSRI's), may have nausea as a potential side effect, they may be the treatment of choice in these cases.

Table 12.6 Anti-emetic Medications

Class	**Medications**	**Side Effects**
5-HT3 antagonists	dolasetron (Anzemet®) granisetron (Kytril®) ondansetron (Zofran®) palonosetron (Aloxi®)	Constipation, abdominal pain, dizziness, fatigue, malaise, headache, blurred vision, elevated liver function tests
Corticosteroids	dexamethasone (Decadron®) methylprednisolone (Medrol®)	Mood changes (insomnia, euphoria, irritability, or depression); GI distress; hypertension; skin atrophy; increased risk for infection; osteoporosis; cataracts; Cushing's syndrome
Benzodiazepines	lorazepam (Ativan®)	Sedation, dizziness; confusion, unsteadiness
NK-1 antagonists	aprepitant (Emend®)	Sedation, fatigue, hiccups
Cannabinoids	dronabinol (Marinol®)	Confusion; depersonalization; euphoria; paranoid reaction; impaired coordination; changes in blood pressure; palpitations; tachycardia; vasodialation/flushing

(*continued*)

Tab 12.6 (Continued)

Class	Medications	Side Effects
Dopamine Receptor Antagonists -Phenothiazines	prochlorperazine (Compazine®) promethazine (Phenergan®)	Akathisia; dystonic reactions; Parkinsonism; tardive dyskinesia; blurred vision; ocular changes; constipation; suicidal ideation; orthostatic hypotension; QT prolongation; leukopenia; thrombocytopenia; neuroleptic malignant syndrome (rare)
Butyrophenones	haloperidol (Haldol®) droperidol (Inapsine®)	Akathisia; dystonic reactions; Parkinsonism; tardive dyskinesia; blurred vision; ocular changes; constipation; suicidal ideation; orthostatic hypotension; QT prolongation; leukopenia; thrombocytopenia; neuroleptic malignant syndrome (rare)
Substituted benzamides	metoclopramide (Reglan®)	Constipation; sedation; dystonic reaction; restlessness; fluid retention; tremors: parkinsonism, akathisia
Atypical antipsychotics	olanzapine (Zyprexa®)	Sedation, dizziness, orthostatic hypotension, akathisia, elevated liver function tests, weight gain, neuroleptic malignant syndrome (rare), neutropenia
Antacids • H_2 receptor antagonists • Proton pump inhibitors GABA Analog	cimetidine, famotidine, ranitidine pantoprazole gabapentin (Neurontin®)	

Table 12.7 Antiemetic Regimens Based on Emetogenic Potential of Chemotherapy

Emetogenic Risk	Regimen to prevent acute chemotherapy-associated nausea
Minimal Risk	PRN antidopaminergic
Low Risk	Dexamethasone PO
Moderate Risk	5-HT_3 inhibitor + dexamethasone PO
High Risk	5-HT_3 inhibitor + dexamethasone po + NK1 inhibitor

Table 12.8 Behavioral Management of Nausea and Vomiting

Symptom monitoring	For refractory nausea	Patient charts episodes of nausea and vomiting with details of onset, duration, exacerbating and alleviating factors, relation to medications and oral intake. May help to give patient a sense of control over the symptom and make environmental modifications to lessen nausea.
Progressive muscle relaxation	For acute onset and delayed emesis; may be less effective for anticipatory nausea	Actively tensing and then relaxing specific muscle groups, usually starting with feet and progressing systematically to the muscles of the head; sometimes done with guided imagery.
Systematic Desensitization	For anticipatory nausea	Identification of situation that causes the most nausea; list of cues for development of nausea; order cues from least to most nausea causing; gradual exposure to cues in hierarchical order starting with the least nausea causing; development of alternative responses for nausea for each cue with the goal of mastering the full situation.
Hypnosis	For anticipatory nausea	Deep relaxation followed by imagery and suggestions such as successfully completing the activities of chemotherapy without developing nausea or vomiting.
Cognitive Distraction	For anticipatory nausea; also could be used for acute onset and delayed emesis	Focusing attention away from nausea and onto another thought or activity, such as video games or music.

Adapted from Morrow GR, Roscoe JA & Hickok JT. Nausea and vomiting. In: Breitbart W. ed. Management of specific symptoms. In: Holland JC, ed. *Psycho-Oncology.* New York, NY: Oxford University Press; 1998:476–484.

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* The NCCN Guidelines are a work in progress that will be refined as often as new significant data becomes available.

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Chapter 13

Sexual Dysfunction

Mary K. Hughes

Sexuality is an integral part of human life with the potential to create new life and fosters intimacy and shared pleasure in a relationship.[1] All cancers can impact sexuality and intimacy for years.[2] These are important aspects of health and general well being.[3,4] Addressing sexuality issues demonstrates to the patient that the clinician is open to questions and concerns about sexuality. Using Annon's PLISSIT Model of sexual assessment,[5] the clinician can open the discussion about sexuality with the aid of open-ended questions. See Table 13.1.

Table 13.2 describes sexual phases and dysfunction as well as possible causes of the dysfunction.

Table 13.3 lists factors that can affect sexual functioning.

Treatment of sexual dysfunction in people with cancer can be challenging and are limited because of the type of cancer a person may have. Table 13.4 describes possible treatments of sexual dysfunction.

There may be symptoms that need to be treated by a specialist so that the patient can improve sexual functioning. Table 13.5 lists referral resources that can help a patient improve sexual functioning.

Table 13.1 Annon's PLISSIT Model

Permission	Give permission to talk and think about sexuality and cancer at the same time: "What changes have you noticed sexually?" "Sexually, how are things going?" "Tell me about any sexual changes." "How has this affected you sexually?"
Limited Information	Tell the patient about sexual side effects: Erectile dysfunction, alopecia, alibido, vaginal dryness, menopausal symptoms.
Specific **S**uggestions	Make suggestions to help with sexual dysfunction i.e., vaginal lubricants and moisturizers; medications, position changes, sensate focusing, safer sex.
Intensive **T**herapy	Refer to marital therapist, sexual therapist, or psychotherapist.

Adapted from Annon JS. The PLISSIT Model: A proposed conceptual scheme for the behavioral treatment of sexual problems. *J Sex Educ & Therapy.* 1976;2: 1–15.

Table 13.2 Phases of Sexual Function and Causes of Dysfunction

Phases—Description and Dysfunction	Causes of Dysfunction	
Libido—Instinctual; multidetermined process; urge for or interest in sexual intercourse; controlled by testosterone **Disinterest in sexual activity; absence of sexual fantasies and dreams**	Anxiety, body image, chemotherapy, depression, fatigue, hormones	Medications; menopause; pain; prostate cancer; relationship changes
Arousal—Increase in heart rate, respiratory rate, blood pressure and pelvic blood volume; in women, vaginal lubrication and swelling of genital tissues; in men, penile erection. **In women, vaginal dryness; in men, erectile dysfunction (consistent inability to obtain and/or maintain an erection sufficient for satisfactory sexual insertion)**	Anxiety, body image, chemotherapy, depression, dyspareunia, fatigue, medications	Menopause; neuropathies; pain; surgery for gynecological, prostate, or rectal/anal cancers; radiation to pelvic area
Orgasm—Rhythmic contraction of smooth muscles in and around the genitals; sense of physical pleasure and release; in men, ejaculation **Delayed; absent; happens too fast; retrograde or dry ejaculation**	Anxiety, chemotherapy, depression, fatigue, medications	Menopause; pain; radiation to pelvic area; surgery to pelvic organs
Resolution—Period after orgasm; muscles relax, blood leaves genitals; penis flaccid, vaginal lubrication ends **Refractory period**—Length of time for the penis to "reset" and another erection to be possible **Refractory period lasting a day or more**	Anxiety, depression, medications, surgery	

Adapted from Hughes MK. *Disorders of sexuality and reproduction.* In: Berger AM, Shuster JL, Von Roenn JH, eds. *Principles and Practice of Palliative Care and Supportive Oncology.* 4th ed. Philadelphia, PA: Lippincott, Williams & Wilkins; 2013:663–673.

Wilmoth, MC. Life after cancer: what does sexuality have to do with it? 2006 Mara Mogensen Flaherty Memorial Lectureship. *Oncol Nurs Forum.* 2006;33(5):905–910.

Table 13.3 Factors Affecting Sexual Function

Physical changes	Alopecia, amputation, anemia, central nervous system changes, fatigue, hormone imbalances, immunosuppression, incontinence, insomnia	Ostomy, pain, menopausal symptoms, muscle atrophy, shortness of breath, scars, sterility, thrombocytopenia, weight changes
Nutritional disturbances affecting ability for and interest in kissing and being touched	Anorexia, constipation, diarrhea, dry mouth, mucositis	Nausea, vomiting, taste alterations associated with treatment
Psychological factors	Adopting the "patient" role (asexual); altered body image; feelings of anxiety, depression, and anger; fears of death, rejection by partner, loss of control	Guilt regarding behavior imagined as the cause of a disease or disability, reassignment of priorities
Social and interpersonal factors	Communication difficulties regarding feelings or sexuality, difficulty initiating sexual activity after a period of abstinence, fear of being contagious	Fear of physically damaging an ill or disabled partner, lack of imagination, lack of a partner, lack of privacy

Adapted from Messner C, Vera T, Washington C, Quinlan S, Wong A, Zador D. Issues of self-image, disfigurement, and sadness in people living with cancer. *Onc Nurs.* 2013;6(3):22–26.

Tierney DK. Sexuality: a quality-of-life issue for cancer survivors. *Sem Oncol Nur.,* 2008;24(2):71–79.

Kaplan M, Pacelli R. The sexuality discussion: tools for the oncology nurse. *CJON.* 2011;15(1):15–17.

Table 13.4 Treatment of Sexual Dysfunction

Alibido (hypoactive sexual desire)	Medicate physical symptoms (pain, nausea, etc.) Treat anxiety and depression or change antidepressants, e.g., buproprion (Wellbutrin®) Refer to sexual therapist Regular exercise Shower together	Testosterone supplement or refer to endocrinologist Estrogen supplements (Estring® or vaginal estrogen cream) L-arginine for women who can't take estrogen (anectodal) Schedule sexual encounters Erotica- books, movies
Female sexual arousal disorder	Water soluble vaginal lubricants Vaginal moisturizers Natural oils (coconut, almond, olive) EROS-CTD®- a vacuum device for females Vibrators	Vaginal dilators Positional change Treat depression and anxiety Sensate focus exercises Masturbate

(*continued*)

Table 13.4 (Continued)		
Male erectile disorder	Oral medications (PDE5 inhibitors), e.g., sildenafil (Viagra®), vardenafil (Lavitra®), tadalafil (Cialis®) Vacuum constriction device Penile injections	Penile implant Penile band Vibrators Positional change Masturbate
Orgasmic disorder	Change antidepressants (SSRIs can delay orgasm; consider substituting burpropion (Wellbutrin®) Vibrators Masturbate	Positional change Refer to sexual therapist. Psychostimulants, e.g., modafinil (Provigil®), methaphenadate (Ritalin®), armodafinil (Nuvigil®) Sensate focus exercises

Adapted from Hughes MK. *Disorders of sexuality and reproduction.* In: Berger AM, Shuster JL, Von Roenn JH, eds. *Principles and Practice of Palliative Care and Supportive Oncology.* 4th ed.: Philadelphia, PA: Lippincott, Williams & Wilkins;2013:663–673.

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Kaplan M. Pacelli, R. (2011). The sexuality discussion: tools for the oncology nurse. *CJON.* 2011;15(1):15–17.

Table 13.5 Referral Resources for Sexual Dysfunction	
Referrals	**Reason**
Bowel management specialist	Diarrhea, constipation
Cardiologist	Assess cardiac function for PDE5 inhibitors
Endocrinologist	Hormone, thyroid replacement; fertility issues
Fatigue specialist	Manage fatigue
Marital therapist	Marital issues
Nutritionist, dietitian	Weight control, loss; bowel problems; nausea
Pain specialist	Pain control
Psychiatrist	Depression; anxiety; adjustment disorder
Psychologist, Advanced Practice Nurse	Behavioral, psycho-education, supportive therapy
Reproductive specialist	Fertility issues
Sexual therapist	Sexual therapy, www.aasect.org, www.therapistlocator.net
Social worker	Housing; therapy

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Section IV

Communication Issues

Chapter 14

Strategies for Giving Bad News

Walter F. Baile

Introduction

As oncologists, you must repeatedly give bad news over the course of a day. It is likely you will do it thousands of times over a long career. How to communicate bad news to patients, how to handle the difficult questions about their shortened survival and, how to respond to patients' anger or tears are challenging issues. Being able to communicate information clearly, and in a kind and sensitive manner and to listen empathically is the hallmark of the good physician. This chapter provides an approach to effective communication which is simple and readily applied.

Giving Bad News

Giving bad news that has the potential to drastically change a patient's life and future is best approached in several steps, which can be remembered by the acronym: S-P-I-K-E-S (Box 14.1).

Box 14.1 S-P-I-K-E-S[1]

Setting Up the Interview

- Review the chart and reflect on the information you must give. Choose a quiet room where you will not be interrupted and put your pager and beeper on silent.
- Invite the patient to include a family member, or more than one, if wanted.
- Sit down so that the patient and you are at eye level to dampen the "white coat syndrome."

Perception

- Find out the patient's current understanding of the illness and test results. In this way you will learn how much of an information gap there is between the actual medical facts and what the patient understands or believes.

(*continued*)

Box 14.1 (Continued)

- A simple statement: "Before I tell you the results of the test . . . I'd like to make sure that we are both on the same page. Would you tell me what you understand right now about your illness?"

Invitation

- This step avoids giving too much information too fast.
- Ask, "Is it OK if I go ahead and discuss what the findings were?" This may be especially important when a family member is present, and the patient may not want the relative to hear the information.
- Some patients (especially when the disease is advanced) may want much less detailed information at this juncture.

Knowledge

- It is best to prepare the patient by making an empathic statement such as, "I'm afraid I have bad news for you." This avoids the patient being taken by surprise. The information should then be given in clear language without jargon to avoid misunderstandings.
- Remember that you can never make bad news better than it is and attempts to do so with false reassurance or by withholding information may result later in loss of trust.
- However, the information should be given in as kind, sympathetic, and empathic manner as possible, at times touching the person's hand when it feels appropriate. This is often felt as expression of your concern.
- Equally important is to avoid unnecessarily frightening statements.

Emotions

- When news is very bad or unexpected, patients may express a range of emotions from shock to tears to anger.
- It is important to be patient and tolerate whatever the emotion is. If there are tears, move closer and offer a tissue. Several statements may help: "I can see that you did not expect this . . ." or "You know, you had a perfect right to believe that things were going well and this comes as a shock." or "Can you tell me how you are feeling?" (To family members, "Do you have thoughts about this?").
- These strategies often prevent escalation of the emotion and are appreciated by the patient and lead to the sense that, "The doctor cares about me as a person."
- When the statement is coupled with "This may be rough, but we'll get through it together," it also reassures the patient about your commitment to his/her continued care, irrespective of change in treatment plan.

Strategy and Summary

- Having a strategy provides a roadmap for the patient and helps to reduce the significant anxiety associated with the uncertainty about the illness and the future.

(*continued*)

Box 14.1 (Continued)

- Patients should be encouraged to bring a family member or significant other, who can fill in the gaps in information which the patient may not hear due to anxiety.
- Concerns about the effect of the news on the family should be addressed. "I am worried about telling my children" is an issue that should always be addressed.
- It is crucial that bad news never be given without following up by describing the treatment plan you recommend. It is useful also to ask the patient what they understand about the plan so you can be sure that they are on the same page as you. Sending the patient a letter describing the visit and the plan has been shown to enhance patient and family comprehension.
- There is never a time to say, "There is nothing more I can do for you."

Adapted from Baile WF, Buckman R, Lenzi R, Glober G, Beale EA, Kudelka AP. SPIKES-A six-step protocol for delivering bad news: Application to the patient with cancer. *The Oncologist,* 2000;5:302–311.

Giving bad news is stressful for the patient, the family, and the doctor. Communicating in ways in which patients feel emotionally supported increases their feeling of trust, hope, a sense of being respected as a person, and it promotes their willingness to be a partner with the doctor to achieve the best outcome possible. (See Box 14.2.)

Box 14.2 Difficult Questions May Arise in the Course of Giving Bad News[2]

"Tell me, doctor, how bad is it?"

- Explore the question further by asking the patient exactly what he/she would like to know.
- Many patients have milestones they would like to meet (such as a trip they want to take) and want to know if they could go ahead with it. Others want to be able to plan for the future.
- When patients press for information about survival, it is best to give a range of possible time, accompanied by a hopeful statement: "While we're talking about a few months or maybe a year, we can hope that you will be one of those patients that live longer. Remember, you are a statistic of one."

"Isn't there anything more you can do?"

- When curative treatment must change to palliative, this especially may come up.
- It is usually a reaction of shock in a patient (even those who may have been expecting it)!

(*continued*)

Box 14.2 (Continued)

- Resist the temptation to offer another anticancer therapy that may diminish the patient's quality of life without much benefit.
- Instead make an empathic "wish" statement such as, "I wish there were another treatment that would not do you more harm than good right now." This communicates that you care about the patient's quality of life as well as prolonging life.

"I want a second opinion"

- Don't argue with the patient that another physician will come to the same conclusion as you.
- Some patients need time to come to grips with the implications of the bad news. Arranging for a second opinion buys the time necessary to do this and may reassure the family that everything possible has been done.

"The family says . . ."

- "You can't tell my father his cancer will come back. It will kill him."
- Resist the temptation to immediately tell them you are ethically bound to tell the patient. Instead explore the relative's concerns by asking them to be more specific about what they are worried about.
- Often family members project their own anxieties onto the patient. Acknowledge their desire to protect the patient but suggest they, the patient, and you speak together.
- If the patient truly wants to receive information only from the family, this should be respected.

When the patient presents for the first time with a metastatic or very advanced disease . . .

- Resist the temptation to raise the patient's expectations ("I'm going to make you the poster boy for lung cancer.") or to be too dismal ("There's nothing more we can do for you.").
- Employ the strategy of "hoping for the best and preparing for the worst."
- "You know I'm sorry to say that you do have very bad disease but I can assure you that we will give you the best treatment available and we can hope that things turn out better than would otherwise normally be the case."

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Chapter 15

Supporting Parents with Cancer: Screening and Psycho-education

Cynthia W. Moore, Anna C. Muriel, and Paula K. Rauch

Introduction

Nearly 20 percent of cancer patients diagnosed in the past two years are parenting minor children, and over half a million children are living with a parent in early stages of treatment and recovery.[1] Patients experience their parenting role as central to their identity, and may make treatment decisions with their children in mind.[2,3] Children coping with parental cancer may experience significant distress,[4,5] especially near the end of life.[6] Clinicians can enhance their alliance with patients and families and improve patient coping by finding ways to address parenting concerns.

To recognize and monitor distress about parenting issues related to a patient's illness, clinicians can combine formal and informal screening practices. A brief measure, the Parenting Concerns Questionnaire (PCQ),[7] assesses the intensity of parental distress in three main areas: the practical impact of the illness on the child, the emotional impact on the child, and concerns about the co-parent. Higher scores indicate greater distress, and items can be discussed individually to clarify the nature of a parent's concerns.

Open-ended questions asked of both the patient and available co-parent also highlight areas of parenting concern (Table 15.1).

After the clinician elicits parenting concerns, patients may be receptive to guidance around supporting children. Honest, age-appropriate communication about the illness is a crucial aspect of this ongoing support.

Guidance for Parents: *HONEST* Communication

***H*ome:** Plan to talk with children in a nonpublic space, when there is ample time for conversation.

- If children are at very different developmental stages, consider talking first with older children, then with the entire family.

Open-ended questions: Ask whether children have noticed changes in parents or at home, and what they think is causing these changes.

Table 15.1 Informal Screening: Get to Know the Children through the Parent's Eyes	
"Do you have children at home? Tell me about what they are usually like . . ."	• Parents often enjoy talking about their children's personalities, temperaments and coping styles. • Asking about the parenting role demonstrates interest in patients as individuals separate from the illness, and builds trust.
"How are they coping with your illness? Do you have any concerns about any of your children?"	This allows you to acknowledge distress in the patient and in children, and address what is most pressing from the patient's perspective.
"What have you told them about your illness? What words did you use?"	This provides the starting point for guiding further conversations with children.
"Who would you talk with if you had concerns about your children?"	This allows you to share information about hospital or community-based resources.

Name the illness: Doing so signals a willingness to openly discuss the illness and its impact with the child.

- Using the real name of the illness, such as "breast cancer" or "lymphoma," not euphemisms such as "bump" or "boo-boo," helps children distinguish common childhood illnesses that they are likely to experience, from cancer.
- Children frequently overhear discussions about the illness, and tend to be less confused or upset if parents have already discussed it with them.
- Young children will not understand the implications of "cancer"; therefore it is not usually an upsetting word for them.

Emotions: Inquire about children's feelings.

- Normalize a range of feelings and expect their intensity to ebb and flow over time.
- Children may be reassured if parents acknowledge their own feelings of sadness or worry, then express hope or optimism.

Specify impact: Discuss how illness-related changes will affect the child's life.

- Elicit children's ideas to minimize and manage disruptions to routines.

Touch base: Check in about questions and concerns at times the child is typically most open to talking.

- Encourage children to share any worries, even if doing so might upset the parent. If this is too difficult, identify another adult in whom the child can confide.
- Some questions are simpler than they initially sound. Parents can better understand the intent behind a child's question by inquiring, "What got you thinking about that?"

- Request that children share anything they read or hear from others about their parent's illness. This allows parents to correct misinformation and provide reassurance.
- Respect a child's communication style. Children who typically avoid talking about feelings or challenges are unlikely to want to talk much about parental illness.

Parents may struggle to find the right balance between providing too little, or too much, information to children. Most parents want to protect their children from bad news and distress, but many also recognize that talking openly helps prepare children for challenges. However, parents may also be wary of sharing information sooner, or in more detail, than necessary. This is particularly true when responding to the question, "Are you going to die?"

Guidance for Parents: "Will you die?"

- Even in very early stages of the illness, helping parents find a way to answer this difficult question removes a significant impediment to open communication with children.
- Help parents avoid making promises they cannot keep, while emphasizing hope and optimism. "Anyone could die at any time," although honest, is not comforting.
- Parents are often particularly reluctant to talk with children already exposed to a death from cancer. Suggesting a framework that acknowledges that people do sometimes die from cancer, but specifies concrete ways the parent's situation differs from the other person's (location in body, how quickly it was caught, baseline health of parent, etc.) may help.
- Even when the prognosis is poor, parents may be able to provide a "zone of safety" for children by expressing confidence in survival for many years or months, or simply letting children know that they will be updated as things change, but for now, no one is expecting the parent to die very soon.

Anticipating Common Challenges

Along with providing guidance around communication with children about cancer, clinicians can also support families by describing and planning for predictable challenges during the parent's active treatment.

- Discuss specific ways that symptoms may impact parenting. These include fatigue, nausea, pain, short-term memory loss, being unable to drive, hair loss, and loss of mobility. Encourage planning, problem solving, and mobilization of social support.

Table 15.2 Developmental Stages

Infants & Toddlers (birth–2 years) rely on familiar caregivers to provide security so they can safely explore their environment, and comfort when they are distressed.	• Distress may be a reaction to adults' distress, or to unfamiliar routines or environments. • Predictable routines, interactions with a few familiar caregivers, and protection from parents' intense emotions are helpful. • If a parent is likely to die, explore ways to share the parent's love with the child in the future, through letters, photos or mementos.
Preschool children (3–5 years) are verbal, egocentric, and prone to drawing surprising conclusions about how events relate to each other ("magical thinking").	• Imagined explanations for why a parent became ill sometimes include a mistaken sense of personal responsibility. ("I kicked Dad and he got stomach cancer.") • Death is not understood as permanent or as affecting all biological processes. Children's questions may reflect this confusion ("When will Daddy come home? Is Mommy still sleeping?) • Emotional responses may occur well after an upsetting event.
Latency-age children (6–11 years) rapidly gain new skills and knowledge, develop close friendships, and use familiar rules to manage new situations.	• Grasp concrete explanations about the illness (not contagious, not caused by anything the child or parent did) and the distinction between functional changes due to the illness versus treatment-related symptoms. • May feel keenly that the illness is unfair. • Consistent involvement in usual activities and friendships provides distraction from difficult feelings, and a sense of mastery.
Adolescents (12–18 years) are balancing individuation with connectedness, and may have conflicted, yet loving, relationships with parents.	• Empathy toward parent's suffering may prompt avoidance of the parent, and potentially guilt. • May feel pulled between spending time with friends and helping at home. • Worries encompass cancer's impact on daily life, the possibility of a future without the parent, financial concerns, finding meaning in suffering. • Behaviors such as unusual risk-taking, withdrawal, or setting too-high standards may warrant intervention.
Young adults (19 and older) often live independently, yet rely on parents for emotional and practical support.	• Parents insistent that the illness not affect the child's path in life (choice of college, job location) may be reluctant to share bad news. Young adults usually prefer to be active decision makers about their futures, and benefit from weighing options with parents.

- Share information about free online resources for organizing help and updating groups of people, such as "Lotsa Helping Hands."

The types of challenges will vary depending on the developmental stages of the children. Table 15.2 highlights some key aspects of each stage; a more detailed discussion of how children at different developmental stages experience a parent's illness may be found on the website www.mghpact.org.

Table 15.3 Guidance for Parents: Hospital Visits	
A child who wants to visit should usually be allowed to do so.	A parent's agitation, delirium, or intense pain can be frightening to a child. In these cases, it is usually best to postpone a visit until the parent's status is improved or sedated.
Prepare the child for what will be seen and heard.	Describe the purpose of medical equipment, the parent's appearance and mental status, what they may do or touch in the room. Anxious children may want to see photos of the hospital room or the parent before a visit.
Explore and alleviate specific fears.	These include seeing blood, seeing the parent receive an injection, or the parent's having a medical crisis while the child is present.
Bring a designated support person.	When possible, the child should dictate the length of the visit. Having extra familiar adults nearby allows greater flexibility for each child in the group.
De-brief after the visit.	Ask children what was best, worst, or most surprising about the visit. Normalize a range of feelings, including relief at leaving the hospital, and sadness at separating.
If a visit cannot occur, find other methods of communication.	Children can send cards, drawings or photos, and enjoy hearing of the pleasure they bring. Technologies like video chatting and brief video recordings can help families feel connected.

A parent's hospital stay may be stressful; visits may be easier if children are well prepared (Table 15.3).

Referral Guidelines

Some circumstances increase the likelihood that a child will need formal mental health support. Intense parental conflict or divorce may affect the ill parent's willingness to communicate with children, as well as both parents' ability to remain attuned to children's needs. These families may require referral for more intensive parent guidance or family therapy. In extreme cases, the Department of Social Services/Child Welfare or the courts through a Guardian *ad Litem* may need to be engaged.

Other indications that a child may need mental health support include:

- The development of a new mood or anxiety disorder, or recurrence of pre-existing symptoms.
- New problems in school with achievement, concentration, or interest that last more than a few weeks.
- Withdrawal from peers or unusual levels of peer conflict.
- Risky behaviors, particularly in adolescents.
- Suicidal ideation: requires immediate assessment and intervention.

Finally, optimizing patients' mental health and, in particular, treating depression creates conditions at home for children in which they are most likely to thrive.

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Chapter 16

Spiritual and Religious Communication with Patients and Families

George F. Handzo

Introduction

Recent research supports the importance of meeting the spiritual and religious needs of patients and family caregivers in the cancer population.[1,2] Spiritual and religious beliefs and issues are not only a great support to many patients and family members; they can be sources of distress that impede decision making. Outcomes of meeting spiritual needs include increased patient satisfaction and reduced use of aggressive care at the end of life. Outcomes of not meeting spiritual needs include decreased patient satisfaction, difficulty making goals of care decisions, decreased use of hospice, and overuse of aggressive care at the end of life. As with physical pain and suffering, the extent of spiritual distress or pain is defined by the patient.[3] It is essential for all caregivers to allow the patient to describe the amount and extend of their own spiritual distress. That evaluation should always be accepted and used as the basis for any interventions or referrals.

Guidelines

Guidelines support the involvement of the primary oncology team in screening for spiritual distress. Brief guidelines for spiritual care are included in the National Comprehensive Cancer Network (NCCN) clinical practice distress management guidelines with the goal that the primary oncology team will be able to identify the patient whose distress is related to a spiritual or religious issue, and to refer the patient to an appropriate clergy, chaplain, or pastoral counselor.[4]

Building on the prior work of Puchalski, Ferrell and colleagues,[5] the *Clinical Practice Guidelines for Quality Palliative Care,* 3rd ed. also provide strong support for involvement of the whole care team in the provision of spiritual care. This involvement is based on a definition of spirituality that focuses on the patient's meaning making and sense of connectedness

to that which is important in their lives.[6] All members of the team are expected to be spiritual-care generalists with the professional chaplain as the spiritual- care specialist.[7] This model is consistent with the generalist-specialist model used throughout medicine and now becoming more prominent in palliative care. As in other areas of care, this model proposes that all physicians should be assessing for spiritual distress in their history and physical examinations, and, where appropriate, making referrals to spiritual-care specialists for a complete spiritual assessment. The referral should include a "rule out" spiritual diagnosis as part of an overall spiritual care plan.

Handzo and Meyerson echoed this model in their recommendations on discovering the sources of spiritual and existential suffering for patients with advanced disease.[3] These recommendations suggest that:

- Spiritual-history questions should assess existential and spiritual suffering, particularly in regard to issues of connectedness and meaning.
- In assessing the patient, the clinician should create an environment of undivided attention and nonjudgmental presence in which the patient and family caregivers feel free to express their spiritual and existential issues.
- Clinicians should refer patients and family caregivers who seem to have complex spiritual issues to a professional chaplain.

See Box 16.1.

Becoming Comfortable with Discussing Spiritual/Existential Issues with Patients and Family Caregivers[9]

It is important for clinicians to remember that most patients and caregivers want their physicians to understand their religious and spiritual values, beliefs, and practices and want those taken into account in their care

Box 16.1 Key Reasons Spiritual Issues Are Important to Patients with Cancer

- Serious illness may create a "spiritual crisis" in which long-held beliefs are challenged and result in significant distress (e.g., loss of faith, feeling of being punished).
- Beliefs may be playing a major role in how the patient is coping with illness.
- Religious beliefs may affect decisions to accept or reject a doctor's recommendations for treatment (e.g. refusal of transfusions, continuation of life supports).
- Many patients and families want to discuss these issues with the doctor, particularly as illness progresses and when death is near.[8]

planning. If they ask why you are inquiring in this area, you can tell them truthfully that you want to take these aspects of who they are into account in planning their care. For the most part, they will be happy that their care team is interested in this important part of who they are. For those who are resistant to this discussion, you can simply move on with an apology. In sum, this assessment domain should be treated like any other domain such as inquiry into sexual activity which has a rationale rooted in good care planning but which is sensitive and which might be viewed as unnecessarily intrusive by some patients.

Many physicians are concerned that in assessing spiritual/existential issues they are venturing into an area they know nothing about. Although this may be true, it is important to realize that the patient does not generally expect you to be knowledgeable in this area. They simply want you to listen and hear who they are and what values are important to them. It is perfectly fine to let them know that you are not an expert on this subject. Concern, curiosity and respect are all that is required. Providers also worry that they might be opening a "can of worms." Although this might happen from time to time, it is important to remember that you are only the generalist in this area and significant issues that surface should be referred to a professional chaplain.

In this vein, do not hesitate to inquire about or ask for explanations of spiritual/religious language that the patient uses or cues like religious reading material or objects the patient may have. These words or objects are convenient openings to help you learn more about the patient and what is important to them. Another aspect to this curiosity is to never assume that you know what a phrase or object means for this patient. Clarify the patient's concerns, beliefs, and needs and follow hints about spiritual or religious issues. In the same way, you should always be explicit with the patient about how they want these values, beliefs and practices taken into account in their treatment planning.

Issues in Talking to Patients about Spiritual and Religious Issues

It is essential to remember that, although the patient may gain some measure of comfort and reassurance in simply sharing their beliefs, the job of the spiritual-care generalist is primarily assessment. Resolving spiritual and existential concerns the patient might have is the job of the professional chaplain. Likewise, it is essential for the provider to not impose their own beliefs on the patient even in an attempt to comfort or reassure them. Be clear that you have respect for the beliefs and practices of each patient, without regard to your own. This same premise applies in the occasional instance when the patient may ask you about your own beliefs or practice. It is important to have a prepared answer to this question you are comfortable with. That answer can be that it is not important what your beliefs are and turning the discussion back to the patient.

Box 16.2 Questions for Information on Spiritual Attitudes

- Is religion or spirituality important to you in your coping?[10]
- How much strength/comfort do you get from your religion/spirituality right now?
- Do you have some beliefs that have helped you cope with difficult things in the past? Were they religious or spiritual beliefs? Are they important to you now in coping with illness?"
- Are any of your beliefs causing you distress in coping with illness? Any conflict between your beliefs and the treatments recommended?
- Are there any religious practices that you need help to continue during illness (e.g., special foods, prayers)?
- For a formal tool for spiritual and religious assessment (see Chapter 1, Box 1.3).

It is not appropriate for a physician to initiate prayer with the patient, however, an exception might be in the situation where the physician and patient are from the same religious community, and the doctor feels comfortable in doing so. If a patient asks you to pray with them, a common strategy is to stand with them in silence while they pray. *Finally, proselytizing, evangelizing, or in any way seeking to convince a patient or family member to change their beliefs is unprofessional and a violation of patient privacy.*

Assessment

It is best to have a standard spiritual question or two to ask that is compatible with your manner of taking a clinical history, with the goal to determine whether there are pertinent religious issues affecting scoping or treatment decisions. See Box 16.2.

Spiritual Care Planning and Referral

It is helpful to listen for common spiritual issues that may warrant referral to chalplaincy. See Box 16.3.

Be familiar with the chaplaincy resources in your hospital and community. If your hospital has chaplains on staff, they are your primary contact for all spiritual and religious issues. Referrals should be made to them for any patient or family member with spiritual or religious needs. If there is no chaplain on staff, it is helpful to have an informal relationship with a representative from the major faiths of patients in your practice so that when questions arise that relate to a particular religious ritual or practice, you can call for informal advice about how to handle it. If your hospital has a board certified chaplain, they will take responsibility for making and maintaining these connections and accessing these resources as needed.

Box 16.3 Frequent Issues of Patients Requiring Referral to Chaplaincy

- Dealing with anticipated or current grief in patient and in family ("How can I face the loss?").
- Beliefs that are challenged by illness ("God has forsaken me.").
- Concerns and need to discuss death and concepts of afterlife ("What is out there?").
- Loss of faith ("I no longer can believe as I did before.").
- Desire for prayer or other rituals ("I need to ask for help in coping.").
- Loss of hope ("I have no hope for the future.")—Hopelessness may be a cardinal symptom of depression/suicidal ideation and may need to be evaluated by a mental health professional.
- Loss of meaning in life ("I cannot find meaning to life since I am ill.").
- Dealing with guilt from past ("God is punishing me.").
- Treatments recommended are in conflict with deep held religious beliefs ("I cannot accept the doctor's recommendation because it is against my religion.").
- Persons who have lost contact with their former religious community and who wish assistance in the absence of their community ties.

Adapted from National Comprehensive Cancer Network. 1.2013 Distress Management, National Comprehensive Cancer Network, V.2.2913. Accessed September 12, 2013 at www.nccn.org.

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Section V

Issues Specific to Common Cancer Sites

Chapter 17

Brain Cancer

Alan D. Valentine

The psychiatric effects of primary and metastatic brain tumors present challenges for patients, caregivers, and clinicians. The emotional burden is considerable. It is unclear whether the neuropsychiatric sequelae of primary and metastatic brain tumors are distinctly different. From a clinical standpoint, they both result from brain injury.

Table 17.1 Incidence and Prognosis of Brain Tumors

Cancer in the central nervous system (CNS), and its treatment, can be expected to affect cognition, mood, and personality. Loss of the patient's independence and identity means more responsibility and stress for caregivers of these patients than for caregivers of other cancer patients.[1]	CNS tumors that are usually, though not always, benign (i.e., meningiomas, craniopharyngiomas) can cause significant neuropsychiatric and emotional morbidity because of mass effect, disruption of endocrine function, and recurrence.
Primary malignant brain tumors—among the most difficult malignancies to treat; poor prognoses. Overall five-year survival rates approximately 34%.[1]	Gliomas—most common malignant brain tumors, accounting for 29% of all primary CNS tumors and 80% of malignant brain tumors[2]
Metastatic brain tumors indicate advancing disease; often an ominous sign. Over 150,000 new cases of metastatic brain tumors develop each year, accounting for 80–90% of all new cases of CNS cancer annually.	These primary tumors account for 85% of metastases to the brain: • Lung (esp. small cell and adenocarcinoma) • Breast • Melanoma • Renal cell • Colon[3]
Patients with leptomeningeal metastasis are likely to develop diffuse neurological deficits (included slowed cognition) and usually require treatment associated with neuropsychiatric side effects (i.e., brain radiation, intrathecal chemotherapy).	Leptomeningeal spread of cancer occurs in 5% of patients with systemic cancers, including solid tumors, especially: • Lung cancer • Breast cancer • Melanoma • Lymphomas and leukemias[4]

Table 17.2 Brain Tumor Characteristics That Affect Cognitive Function Occur in 70 Percent of Cases of CNS Malignancy

Factors of importance	
• Location of lesion	• Dominant hemisphere lesions (or effects of their treatment) may be associated with loss of verbal or written language function. • Nondominant hemisphere disease may be associated with impairment of visual-spatial processing ability. • Frontal and temporal lesions of either hemisphere can cause memory dysfunction. • More posterior located disease may be associated with inability to process visual cues resulting in various agnosias.
• Rate of tumor growth	• Rapidly growing tumors are more likely to cause acute altered mental status (e.g., delirium) or sudden loss of cognitive ability. • Slow growing benign or malignant tumors are likely to cause insidious changes of cognition, consistent with early stages of primary dementias.
• Number of tumor foci	• Multiple tumor foci increase the likelihood of involvement of critical CNS structures or neurotransmitter pathways.
• Patient age	• Elderly patients and patients with premorbid cognitive impairment may have diminished cognitive reserve at baseline and are thus more vulnerable to new or progressing CNS insults than younger or very high functioning patients.
• Secondary effects of tumor and treatment	• Anatomic damage may be caused by surgery or radiation therapy.
• Diaschesis effects	• Lesions can cause focal dysfunction in anatomically separate areas of the brain via disruption of connected fiber tracts.
Frontal Lobe Syndromes	• Descriptions of prefrontal syndromes are relevant to problems routinely associated with treatment of CNS cancer.[5] • Distant pathology can cause presentations identical to syndromes associated with frontal lesions. • Mixed presentations should be expected. • Compromised higher executive function. Dysexecutive syndrome (most common)—psychomotor slowing. Patients perseverate, lose ability to switch cognitive sets, and have difficulty taking on new tasks. They may develop diminished attention to self-care and flattening of affect. Quite often they appear to be depressed. The constellation of symptoms also suggests progression of subcortical dementia. • Disinhibited type syndrome—emotional labile, poor social judgment, and little insight • Apathetic syndrome—verbal and motor slowing, and eventually urinary incontinence, and lower extremity weakness[8]
Temporal Lobe Tumors	• Function of direct damage to dominant/nondominant sites resulting in deficits described above and physical or physiological disruption of neurotransmitter pathways to and from the frontal lobes • Can also result in frontal/pre-frontal lobe syndromes characteristic of damage to anterior structures

Table 17.3 Brain Tumors—Effects on Personality, Mood, Psychosis, Disinhibition

Changes in personality	• Presentations consistent with almost all primary psychiatric disorders have been described in patients with primary and malignant brain tumors. • Rare neuropsychiatric syndromes also come in all forms. • At first glance, without examination and work-up, there is little if anything that distinguishes psychopathology due to brain tumors. • Often associated with frontal lobe (up to 70%) and temporal lobe (>50%) tumors and may be the first sign of an occult carcinoma, e.g., in lung cancer. • Often the presentation involves "coarsening" or exaggeration of premorbid personality traits. • Changes are usually subtle early on and become more pronounced with disease progression. • There may be marked, fairly dramatic change that brings the patient to evaluation.
Depression	• Median incidence of 16–39% in glioma patients using strict criteria, with much higher rates in peri-operative subpopulations.[6] • Mood disorders including depression and mania have commonly been associated with frontal and temporal lobe lesions. • Again, because of diaschesis, tumors in other locations could easily cause the same presentations. • Pituitary tumors (e.g., craniopharyngiomas) may render a patient hormone-dependent with effects on mood, libido, and fatigue. • Drug side effects, notably those of corticosteroids and anticonvulsants, are common causes of mood disorders in this setting. • "Reactive depressions" in patients trying to cope with loss of independence, cognitive ability, physical function, and disease poorly responsive to treatment are to be expected. (See Chapter 6, Mood disorders)
Anxiety	• Anxiety and "schizophrenia" have traditionally been associated with temporal lobe tumors. Anxiety is probably more common. (See Chapter 5, Anxiety)
Psychosis	• Hallucinations and/or delusions can be a function of delirium, seizure and drug side effects. (See Chapter 7, Cognitive disorders)
Disinhibition	• Presents as paroxysmal rage or sudden violence and impulsivity. • May require environmental changes, antipsychotics, or mood stabilizers to protect the patient and others. • These behaviors typically resolve gradually with disease progression.

Table 17.4 Adverse Effects of Cancer Therapy

Radiation Therapy- (XRT) is integral to management of known primary and metastatic CNS tumors, and as prophylaxis against leptomeningeal metastasis to the CNS. Brain XRT is associated with three major neurotoxicity syndromes.[3]	• Acute radiation syndrome—Occurs during or shortly after completion of XRT; characterized by delirium, nausea and vomiting. It is thought to be associated with cerebral edema and raised intracranial pressure. Patients undergoing cranial XRT are usually treated with corticosteroids to prevent or minimize raised intracranial pressure and so the acute radiation syndrome is infrequently encountered.
	• Early delayed radiation syndrome—Due to temporary demyelination and is characterized by reemergence of neurological symptoms and sometimes a "somnolence syndrome." It usually resolves over days or weeks and again, steroids are protective.
	• Late delayed radiation syndrome develops months or years after completion of XRT and involves progressive, often irreversible cognitive impairment. Radiation necrosis and progressive leukoencephalopathy are implicated as primary causes of the late delayed syndrome.
	• Several other XRT-associated disorders of cognitive function have been described in children and adults.
	• Factors that influence XRT-induced neurotoxicity include:
	  • age
	  • cumulative radiation dose
	  • concomitant chemotherapy
	  • length of survival post-XRT

Chemotherapy- blood brain barrier prevents passage of many chemotherapy and other antineoplastic agents into the CNS	• Several antineoplastic drugs are associated with neuropsychiatric side effects when delivered to the CNS by intravenous or intrathecal routes. • Acute encephalopathy is seen with administration of methotrexate, which may also cause a permanent leukoencephalopathy. • Cytosine arabinoside is associated with acute encephalopathy, which usually resolves, and cerebellar syndrome, which may resolve or persist indefinitely. • The interferons are associated with variable degrees of cognitive dysfunction. (See Chapter 7, Cognitive disorders) • Procarbazine is a weak monoamine oxidase inhibitor which occasionally causes anxiety and must be used cautiously, if at all with most antipsychotic and antidepressant drugs.[3]
Surgery—resection of primary and metastatic brain tumors often tolerated remarkably well	• Peri-operative delirium is common. (See Chapter 7, Cognitive disorders) • Patients with lesions in sensitive areas may experience temporary (sometimes permanent) language or motor deficits that result in problematic anxiety and depression. (See Chapters 5 & 6, Anxiety & Mood disorders)

(*continued*)

Table 17.4 (Continued)

Corticosteroids, Analgesics, Anticonvulsants	• Steroids are generally protective against vasogenic edema and raised intracranial pressure. The drugs can cause psychosis, mania, and especially with long-term use, depressive symptoms. Dose decrease or discontinuation is often helpful. When that is not possible, symptomatic treatment with psychotropic medications is appropriate. • More vulnerable to sedating effects of opioid analgesics. • Anticonvulsants, especially but not exclusively older drugs including phenobarbital, phenytoin (Dilantin®), and carbamazepine (Tegretol®), may cause sedation and confusion at therapeutic or high levels.

Table 17.5 Pharmacological Treatments

Few data are available from clinical trials to guide use of psychotropic drugs in patients with brain tumors.	• Guidelines for use of antidepressants, anxiolytics, and antipsychotics in cancer patients are applicable (see Chapter 2). • The general recommendation to "start low and go slow" is especially applicable to treatment of patients with cancer in the CNS. • Antidepressants—Tricyclic antidepressants may not be well tolerated because of sedative and anticholinergic effects. Use of bupropion (Wellbutrin®) is not recommended in any patient with past history of seizures or current seizure risk. Drug-drug interactions should be considered. Concomitant use of selective serotonin reuptake inhibitors and some anticonvulants (i.e., carbamazepine (Tegretol®), phenytoin (Dilantin®) can increase levels of the latter. • Anxiolytics—Use in patients sensitive to sedative effects of benzodiazepines. The use of shorter half-life drugs such as alprazolam (Xanax®) and lorazepam (Ativan®) is preferred. This drug class may also cause disinhibition or agitation in patients with significant cognitive impairment. In such cases low dose antipsychotics may be used for the same purpose. Buspirone (Buspar®) metabolism may be altered by some anticonvulsants.
Antipsychotics	• Many if not all patients with CNS disease are on anticonvulsants, so the problem of lowered seizure threshold associated with antipsychotics is minimized. • Newer atypical antipsychotics, e.g., quetiapine (Seroquel®) and olanzapine (Zyprexa®), have been associated with hyperglycemia and metabolic syndrome; attention to serum glucose levels is appropriate, especially in patients treated with corticosteroids.
Psychostimulants	• methylphenidate (Ritalin®), d-amphetamine, and modafinil (Provigil®) effective in palliation of psychomotor slowing, depression, and cognitive impairment associated with treatment of brain tumors.[8] Generally well tolerated, but can cause anxiety and insomnia and are problematic in patients with unstable blood pressure.

Box 17.1 Assessment

- Primary or reactive mood, anxiety, and thought disorders overlap with those caused by tumor or treatment.
- Patients are often poor historians.
- Evaluation process is fairly straightforward, if not always revealing.
- Thorough history should be obtained with attention to premorbid symptomatology.
- Especially in cases of cognitive impairment, rely on family members or other caregivers for aspects of the history.
- Because of the great emotional and prognostic significance of cancer in the nervous system, it is important to ask anxious and depressed patients about reactions to diagnosis, understanding of clinical status, and perceptions of the future.
- A search for reversible and treatable causes of symptoms should be commenced, including review of medications as well as laboratory, electrophysiological, and neuroimaging studies.
- Neuropsychological assessment is invaluable in evaluation of the brain tumor patient with behavioral symptoms.[7] In early stages of the disease, neuropsychological test batteries can detect and characterize subtle cognitive deficits. Serial tests help track rate of recovery or decline. Characterization of impairment (deficit versus handicap) is useful for posttreatment rehabilitation and mobilization of appropriate support resources.[7]

Table 17.6 Nonpharmacological Treatments

Psychotherapy	• Supportive, using crisis intervention and psychoeducational techniques.[2] • Primary goal to provide accurate information, and decrease uncertainty and fear to the degree possible. • Relaxation training for patients without major cognitive impairment. • Support groups. • National advocacy organizations such as the National Brain Tumor Foundation, http://www.braintumor.org, and the American Brain Tumor Association, http://hope.abta.org, can provide other valuable resources for the supportive care of patients with CNS cancer.
Cognitive and Vocational Rehabilitation	• Neuropsychological and vocational testing can identify remediable deficits and help patients and caregivers to develop realistic goals regarding education, employment, independence and safety in the home.[7]

(*continued*)

Table 17.6 (Continued)

Support for families and caregivers	• Families and caregivers of patients with cancer in the nervous system face all the problems of families of patients with nonneurological cancer and often the added burden of dealing with progressive cognitive decline and poor prognosis. Rates of psychiatric morbidity are higher in caregivers than in the general population. Ongoing medical and psychosocial care of the patient with CNS cancer should include assessment of caregiver support. Families and caregivers can benefit from many of the supportive techniques used to help patients. Support groups and education can be especially helpful. In some cases it may be necessary to identify or provide resources for individual therapy or pharmacotherapy for depression.

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Chapter 18

Breast Cancer

Mary Jane Massie

Breast cancer is the most common cancer in women and is second only to lung cancer in cancer deaths in women. Over 232,000 women in the United States are diagnosed with invasive breast cancer yearly, and about 40,000 women will die. Although more than 85 percent of women diagnosed with Stage I breast cancer will be alive in 5 years, survival drops dramatically when cancers are diagnosed at later stages. A woman's ability to manage a breast cancer diagnosis and treatment commonly changes over the course of illness and depends on medical, psychological, and social factors.

Evaluation

Many women adapt well to learning the diagnosis and to the treatments offered with the support offered by oncologists, nurses, social workers, and the clergy and do not require psychiatric support. Some women should be referred for psychiatric consultation. See Box 18.1.

Although only 5 percent of breast cancer occurs in women younger than 40 years of age, a disproportionately large number of these women seek psychiatric consultation. See Box 18.2.

The hereditary breast cancer syndrome accounts for only 5–7 percent of all breast cancer cases. In some cancer centers, psychiatric consultation

Box 18.1 Factors Affecting Adjustment to Diagnosis and Treatment

- The disease itself (stage at diagnosis, type of treatments recommended, symptoms, clinical course, and prognosis).
- Prior level of adjustment, patient's own personality and coping style and prior experience with loss.
- The threat that breast cancer poses to attaining age appropriate development goals (e.g., marriage, pregnancy, child rearing, career, retirement)
- Cultural, spiritual, and religious attitudes.
- Presence of emotionally supportive persons.
- Potential for physical and psychological rehabilitation.

Table 18.1 Reasons for Psychiatric Consult

Urgent Psychiatric Consult	Consider Psychiatric Consult
Current Symptoms/ History of:	**Facing Difficult Decisions:**
• Depression and anxiety • Suicidal thinking (attempt) • Substance or alcohol abuse • Confusional state (delirium or encephalopathy) • Mood swings, insomnia, or irritability from steroids • Paralyzed by cancer treatment decisions • Fear death during surgery or terrified by loss of control under anesthesia • Request euthanasia • Seem unable to provide informed consent • Very old, young, pregnant, nursing, single, or alone • Adjusting to multiple losses • Managing multiple life stresses	• How to deal with family history of breast cancer. • Whether to undergo genetic testing. • Whether to inform family of results of genetic testing. • Whether to have risk-reducing surgery such as prophylactic mastectomy and/or prophylactic oophorectomy after a cancer diagnosis or if BRCA 1 or 2 mutation carrier. • Whether to have contralateral prophylactic mastectomy, as risk-reducing surgery. • Whether to have mastectomy or limited resection followed by irradiation. • Whether to have breast reconstruction following mastectomy. • If having reconstruction, which natural tissue or implant to select. • If pregnant at the time of diagnosis, whether to terminate the pregnancy to protect the fetus from teratogenic effects of alkylating agents. • Whether to attempt pregnancy after breast cancer treatment (concern about danger for mother). • Whether to adopt a child given uncertainty of future. • Whether or when to tell employer, colleagues, friends, new relationship/sexual partner about current breast cancer treatment or cancer history. • How to tell children in developmentally appropriate language about diagnosis or need for absences from home for surgery.

Box 18.2 Issues Especially Relevant to Younger Breast Cancer Patients

- Sexual side effects of treatments.
- Genetic testing.
- Fertility and child rearing.
- Education, career.
- Self- and body image.
- Relationships, children.
- Prophylactic mastectomy or oophorectomy.

Table 18.2 Components of the Psychiatric Evaluation of Women who Consider Prophylactic Mastectomy and/or Prophylactic Oophorectomy

- Family cancer history
- Personal history of breast, ovarian cancer and other cancers
- Psychiatric history
- Anxiety disorder
- Depressive disorder
- Body dysmorphic disorder
- Personality disorder
- Perception of cancer risk and anxiety associated with perceptions
- Understanding of actual risk
- Satisfaction with previous plastic surgeries
- Litigation history
- History of abuse, rape or assault
- Sexual, pregnancy and breast feeding history
- Desire to have (more) children
- Timing of prophylactic mastectomy or oophorectomy relative to planned pregnancies
- Feasibility of childrearing with uncertainty about the future
- Partner's role in the consideration of prophylactic surgery
- Strategies to reduce anxiety offered, regardless of the patient's decision

is an essential part of the evaluation process of the women who considers prophylactic mastectomy or prophylactic oophorectomy as risk reducing surgery, after testing positive for a germ-line mutation in BRCA1 and BRCA2 genes. See Table 18.2 and Box 18.3.

Interventions

The interventions for women with breast cancer include drugs, psychotherapy, specialized programs and complimentary treatments. See Tables 18.3–18.6 and Box 18.4.

Box 18.3 Burdens of the Patient's Partner/Husband

- Facing uncertainty (death) and loss of control.
- Participating in many doctor appointments, care.
- Continuing work; managing diminished finances or unexpected costs of care.
- Managing additional responsibility, such as child rearing, domestic responsibilities.
- Adjusting to altered appearance and temporary (or permanent) loss of sexual partner.
- Caring for a (sometimes) ungrateful, irritable, depressed partner.

Table 18.3 Pharmacological Interventions for Breast Cancer Patients*

Reason for Intervention	Type of Intervention
Presurgery, pre- and postchemotherapy, anxiety/agitation	• Anxiolytics—lorazepam (Ativan®), alprazolam (Xanax®), clonazepam (Klonopin®)
Antiemetics pre- and postchemotherapy	• lorazepam (Ativan®), alprazolam (Xanax®)
Insomnia during any phase of cancer treatment	• Hypnotics—zolpidem (Ambien®), eszopiclone (Lunesta®) • Benzodiazepines—temazepam (Restoril®)
Depression, panic, generalized anxiety;	• Antidepressants—sertraline (Zoloft®), paroxetine (Paxil®), duloxetine (Cymbalta®), escitalopram (Lexapro®), fluoxetine (Prozac®), citalopram (Celexa®)*
Vasomotor menopausal symptoms (hot flashes)	• Antidepressants—sertraline (Zoloft®), paroxetine (Paxil®),[19] venlafaxine (Effexor®)*
Unrelenting fatigue after chemotherapy or irradiation	• Psychostimulants—modafinil (Provigil®), methylphenidate (Ritalin®)
Postmastectomy neuropathic pain; peripheral neuropathy	• Tricyclic antidepressants—nortriptyline (Pamelor®), amitriptyline (Elavil®) • Antidepressants—duloxetine (Cymbalta®) • Anticonvulsants—gabapentin (Neurontin®) • Analgesics

*Recommended with Tamoxifen: venlafaxine, mirtazapine

Table 18.4 NonPharmacological Interventions for Breast Cancer Patients*

Psychotherapy	
Patients at all stages; those who need to make treatment decisions Patients at time of diagnosis, with relapse or with metastatic disease	• Individual Therapy—Exploratory, psychodynamic, supportive, cognitive and behavioral elements • Group Therapy—Supportive, cognitive, and behavioral elements • Online & Supportive Care—community-based and national advocacy organizations like: Breast Cancer.Org (http://www.breastcancer.org/) and the Cancer Support Community (www.cancersupportcommunity.org
Specialized Programs	
Appearance during chemotherapy Sexual dysfunction Lymphedema Nutrition and avoiding weight gain Fitting for appropriate prosthesis	• Look Good . . . Feel Better® (www.lookgoodfeelbetter.org) • Sexual counseling, rehabilitation (see Chapter 13, Sexual dysfunction) • Physical therapy • Nutritional counseling • Prosthetic consultants

(*continued*)

Table 18.4 (Continued)	
Complementary Treatments	
Hot flashes Chemotherapy or irradiation	• Acupuncture • Gentle exercise and toning—Yoga, Pilates, Tai Chi

Table 18.5 Interventions for Psychiatric Side Effects of Anti-estrogens	
Irritability	• Antidepressants—sertraline (Zoloft®), paroxetine (Paxil®), escitalopram (Lexapro®), fluoxetine (Prozac®), citalopram (Celexa®)
Depression	• Anxiolytics—lorazepam (Ativan®), alprazolam (Xanax®), clonazepam (Klonopin®)
Insomnia	• Antidepressants (see chapter 6, Mood disorders) • Hypnotics—zolpidem (Ambien®), eszopiclone (Lunesta®) • Benzodiazepines: temazepam (Restoril®)
Hot-flashes/ night-sweats	• Selective serotonin reuptake inhibitors (SSRI's)—sertraline (Zoloft®), paroxetine (Paxil®)[19] • Serotonin norepinephrine reuptake inhibitors (SNRI's®)—venlafaxine (Effexor®)
Weight gain	• Nutrition consult

† Women who are eligible for antiestrogen therapy (tamoxifen, raloxifene, anastrazole, and exemestane) are treated for years.

Box 18.4 Major Sexual Issues in Breast Cancer Patients*

- Decreased libido (desire).
- Decreased vaginal lubrication.
- Painful sex.
- Decreased pleasure in sex.
- Embarrassment about drains, scars, implants, alopecia, lymphedema, weight gain or loss.
- Concern partner will injure during sexual intercourse.

Table 18.6 Benefits of Psychiatric/Group Intervention in Addressing Major Issues with Metastatic Breast Cancer

Issues	Benefits
• Fear of and adjustment to pain, physical and cognitive deterioration • Mourning the loss of autonomous function, old roles, hopes and aspirations • Altering, reducing and/or phasing out work and parenting commitments • Preparing children and other loved ones both emotionally and practically for death • Living with uncertainty of life span • Adapting to a series of treatments, knowing that treatment is offered without hope for cure • Managing life disruption due to many out-patient visits and hospitalizations • Fear of death • Considering practical issues about where to die, funeral or memorial services, bequeaths, etc.	• Opportunity to address existential, physical, emotional, social, psychosexual and relationship (family and others) concerns • Opportunity to express emotions, gain support, manage anxiety, fear, depression • Source of meaningful information • Challenge pessimistic thoughts • Consider priorities • Manage treatment side effects (promote adherence to cancer treatment) • Phase-specific issues (i.e., preparation for death)

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Chapter 19

Gastrointestinal Cancer

Jon A. Levenson

These cancers comprise a diverse group of neoplasms of the GI tract each with unique psychosocial issues and psychiatric complications. They have in common the GI tract as their organ system of origination. They have significant overlap in physical signs and symptoms referable to upper and lower tracts. See Tables 19.1–19.3.

Table 19.1 Interventions for Common Problems in Esophageal and Gastric Cancer

Distress at extent and gravity of disease at diagnosis	• Provide consistent support to patient and family. • Clearly outline a plan for treatment.
Preoccupation with anorexia, eating, and weight	• Help patient cope with lower weight and loss of appetite. • Suggest several smaller meals and diet supplements. • Acknowledge that family support is essential, but also can be a source of conflict and stress.

Social embarrassment of feeding tubes	• Ask what having a feeding tube means for the patient.
	• Develop strategies for timing of feeding and preservation of social life.
	• Explore the option of special clothing to conceal appliances.
	• For those who have trouble swallowing, the following medications can be used (see Chapter 2):
	  • **For depression:** mirtazapine (Remeron®) sol tabs, sertraline (Zoloft®) liquid, citalopram (Celexa®) wafer;
	  • **For anxiety:** clonazepam (Klonopin®) wafers; sublingual lorazepam (Ativan)
	  • **For restlessness:** olanzapine (Zyprexa®, Zydis®), risperidone (Risperdal®) m-tabs.

Social isolation and shame around regurgitation, belching, flatulence	• Validate feelings. • Suggest practical interventions such as support groups, use of simethicone.

(*continued*)

Table 19.1 (Continued)	
History of alcohol and tobacco use (see protocols in Chapter 22, Head and Neck Cancer)	• Directly inquire about past history and active tobacco and/or alcohol use. • Monitor for withdrawal symptoms from each substance. • Treat withdrawal and addiction as early as possible. • Suggest nicotine replacement for tobacco. • Benzodiazepines for alcohol withdrawal (typically in a monitored setting given acute medical risks associated with this state). • Assess other coping tools.
Fear of increasing pain	• Conduct a thorough pain assessment with each visit. • Treat pain aggressively. • Identify and treat anxiety.

Table 19.2 Interventions for Common Problems in Colo-rectal Cancer	
Guilt over delay in screen colonoscopy	• Use empathic listening. • Help patient focus on present care. • Encourage support group attendance.
Variable adjustment to stoma/ostomy	• Assess coping of spouse/partner with demands of living with ostomy. • Enlist help from a Wound, Ostomy, Continence Nurse. • Encourage support groups (e.g. American Cancer Society). • Directly inquire about sexual functioning. (see chapter 13, Sexual dysfunction) • Consider sildenafil (Viagra®), tadalafil (Cialis®), vardenafil (Levitra®) for men with erectile dysfunction. • Suggest special clothing to conceal bags. • Suggest special bags to manage flatulence. • Suggest simethicone for flatulence. • Consult dietitian for diet management.
Burden of possible familial increased risk of colon cancer	• Allow and facilitate patient to express guilt/sadness and other emotions openly. • Assist patient in ways to communicate risk to family members.
Anticipatory anxiety and social embarrassment about acute or chronic diarrhea and fecal incontinence	• Suggest antidiarrheal medications. • Suggest stool softeners. • Emphasize regular irrigation of ostomy. • Consider antidepressants, benzodiazepines to treat recurrent anxiety and agoraphobia. • Suggest adult diapers. • Implement bowel training program for regularity.

(*continued*)

Table 19.2 (Continued)

Depression (see Chapter 6, Mood disorders)	• Antidepressants should be tailored for bowel function.
	  • Specific serotonin reuptake inhibitors (SSRIs) can cause slightly looser stool.
	  • Tricyclic antidepressants and serotonin/neuroepinephrine reuptake inhibitors (SNRIs) such as duloxetine (Cymbalta®) and venlafaxine (Effexor®) are constipating.
	  • Buproprion (Wellbutrin®) is mildly constipating.

Delirium—most common with organ failure at end of life	• Manage most distressing aspects such as agitation and paranoid ideation with antipsychotics. • Explain medical basis of delirium to family. • Utilize strategies to minimize risk of delirium (watch anticholinergic side effects). • Reassess opioid regimen and consider rotating to another opioid. • See Chapter 7, Cognitive Disorders.

Table 19.3 Interventions for Common Problems in Pancreatic Cancer

Depressive symptoms present at time of diagnosis, often with anxiety/restlessness	• Assess mood/anxiety at each visit. • Consider antidepressants early, particularly serotonin reuptake inhibitors. • Anti-anxiety medications to quell anxiety and treat insomnia. • See Chapter 5, Anxiety Disorders.
Feeling devastated at not being a surgical candidate for Whipple procedure Visceral Pain	• Acknowledge distressing emotions, including anger from patient/family as they cope with poor prognosis. • Refocus patient on realistic goals such as optimal symptom control. • Consider contributions of pancreatic insufficiency and constipation to distress. • Consider anesthetic approach, such as celiac plexus block if opioids ineffective, or if opioid side effects too problematic. • See Chapter 11, Pain.
Preoccupation with fatigue	• Openly address concerns. • Check lab and give blood transfusion if indicated. • Stimulants such as methylphenidate (Ritalin®), modafinil (Provigil®) or dextroamphetamine can be useful for fatigue/anergia that comes from depression, opioids, and some chemotherapy (gemcitabine). • See Chapter 10, Fatigue.
Preoccupation with low weight	• Openly address concerns. • Consider appetite adjuvants such as megestrol (Megace®), mirtazapine (Remeron®) if anxious or depressed; also stimulants such as methylphenidate (Ritalin®) or dextroamphetamine (Dexedrine®). • Work with family not to focus solely on eating. What other topics could they be discussing together? What is this keeping them from discussing? What does weight loss mean?

(*continued*)

Table 19.3 (Continued)	
Fear of dying	• Openly address concerns. • Help patient to live in the moment, re-prioritize. • Assist patient to do an end of life review. • Discuss hospice and where patient wants to die (home, hospital, etc). • Assist patient in talking about end-of-life issues with family. • Help patients identify unfinished business and complete what is most important.

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Chapter 20

Genitourinary Cancer

Andrew J. Roth

For all of the genitourinary (GU) cancers, primary psychosocial issues are:

- Coping with physical changes.
- Body image.
- Sexual dysfunction.

Evaluation

See Table 20.1.

Interventions

See Table 20.2.

Summary

Most prominent psychosocial issues in GU tumors are coping with changes in sexuality, bladder, and bowel function, body image, relationships, and lifestyle. In advanced prostate cancer, libido as well as erectile functioning are primarily affected by hormonal treatments, whereas in the other GU cancers that do not use androgen ablation, physical sexual functioning is mainly affected, with secondary emotional distress that can impact libido and the health of sexual relationships. In both prostate and testicular cancers, tumor markers that are used to follow treatment outcomes create significant anxiety. In bladder and renal cell tumors, guilt for having been a smoker complicates reaction to illness. New treatments for all of the advanced GU cancers are giving new hope to patients, who feel they have more realistic chance of living long enough to be able to take advantage of the next new treatment that will arrive. Urinary incontinence is a common, transient problem with any of the GU cancers; however, it is a longer-term problem for those with prostate and bladder cancers. Patients with either prostate or renal cell cancers must deal with the pain of bone metastases in advanced disease, and knowledge of poor prognosis.

Table 20.1 Psychosocial Issues with GU Cancers

Prostate (during early phases of diagnosis)	• General worries of a cancer diagnosis. • Controversy and decision-making uncertainty about the best primary treatments, i.e., radical prostatectomy (open surgery versus laparoscopic versus robotic) versus radiation therapy (external beam or brachytherapy or both), which show no significant difference in overall survival or quality of life, but differences in perioperative blood loss and length of hospitalization, as well as specific areas of functioning (i.e., sexual, urinary, or bowel functioning) versus the newly available proton therapy. Active Surveillance (or watchful waiting) is desired by many men to avoid quality-of-life deficits of active treatment, but requires multiple biopsies, keeping prostate cancer "front and center," sometimes for years. • Multiple second opinions regarding primary therapy sometimes create more confusion and distress. • Relationship that fosters confidence and trust of urologists, radiation oncologists and medical oncologists reduces uncertainty. • Reactions depend on psychiatric history, social supports available and significant life changes, such as recent widowhood, divorce and dating, impending or recent retirement, loss of spouses or family members (especially to prostate cancer), given that 65% of men with prostate cancer are over the age of 65.
Testicular	• Loss of testis—standard diagnostic procedure is to remove affected testis via inguinal orchiectomy; biopsy alone may spread cells. Prosthetics often help self-image. • Tumor-marker anxiety may become a problem and produce anxiety while awaiting results, similar to men with prostate cancer. • Concern for recurrence and treatment side effects. • At peak of a young male adult's development leads to heightened risk of depression, anxiety, anticipation of pain, bodily trauma, fertility, and death. • Metastatic germ cell tumors can be treated successfully with high dose chemotherapy. • Fear of dying.
Bladder	• Repeat cystoscopies following local therapy with TransUrethral Resection (TUR) +/- BCG that avoids/ postpones cystectomy. • Sexual and urinary functioning affected in a similar fashion to radical prostatectomy after cystectomy. • A large proportion of men suffer erectile impotence, though the incidence is decreasing with nerve sparing techniques. • Major sexual side effect for women is genital pain, particularly during intercourse. • Coping with body image changes.

(*continued*)

Table 20.1 (Continued)

Renal carcinoma	• Compromised renal function. • Poor prognosis major cause for distress. • Coping with pain, shortness of breath, concentration deficits, cognitive problems. • As the disease progresses, anticipatory bereavement becomes a pertinent challenge. • Complicated by disease-free periods when the person is free of disease after surgery but has the knowledge that recurrence is likely. • The conflict of maintaining hope while understanding discouraging odds results in anxiety and depression. • New first-line chemotherapeutic agents—oral multikinase inhibitors like sunitinib and pazopanib—have improved survival.

Table 20.2 Management of Psychosocial Issues with GU Cancers

Issues with Clinical Treatment	Management
Prostatectomy	
• Coping with a significant risk of erectile dysfunction (ED) as most feared side effect (see Chapter 13, Sexual dysfunction) • Coping with urinary incontinence • Coping with urinary bleeding from possible radiation cystitis. • Fear of urine leaking, of smelling of urine, and of having to use diapers is humiliating to many men, resulting in shunning social contact. • Significant anxiety and depression	• ED medication: sildenafil (Viagra®), tadalafil (Cialis®) or vardenafil (Levitra®) and penile rehabilitation • Penile injections with vasodilating agents • Vacutainers • Penile suppositories • Penile implants • Identification of etiologies and medical or surgical resolution (pelvic muscle re-education, bladder training, anticholinergic medications, artificial sphincter surgery) • Educate patients and families about incontinence • Give recommendations to alleviate or reduce symptoms, including practicing Kegel exercises • Cf. Chapter 7, Sexual Dysfunction.
Prostate Cancer—Radiation therapy (conventional or brachytherapy with seed implants)	
• Coping with risk of delayed erectile dysfunction and urinary problems (compared to surgery) • Coping with radiation cystitis • Coping with bowel function problems such as anorectal pain, diarrhea, rectal ulceration and bleeding • Coping with a prostate specific antigen (PSA) level that does not fall to zero	• Support groups • Educate about protective undergarments and Kegel exercises • Older men are often reluctant to take pain medications or dosages adequate to truly help. Encourage treatment of pain from boney metastasis • Educating that PSA nadir may not be undetectable as with surgery, leading to increased anxiety about uncertainty • See Chapter 11, Pain

(*continued*)

Table 20.2 (Continued)

Issues with Clinical Treatment	Management
Prostate Cancer—Watchful waiting/Expectant Monitoring or Active Surveillance (AS)	
• No treatment side effects to deal with • With controversy over benefits of PSA Screening, Active Surveillance is more palatable to many men to avoid QOL deficits • Anxiety about "doing nothing" is difficult for many of these largely older men (over age 70) • PSA anxiety leads to insomnia and panic symptoms	• Education about PSA levels • Support and acknowledging fears of rising PSA levels • Anxiolytic medications: Benzodiazepines such as alprazolam, 0.125 mg–0.5 mg prn; lorazepam, 0.5 mg–1 mg prn; or clonazepam, 0.25 mg–1 mg, prn may be used in the days or weeks prior to PSA testing (see Chapter 5, Anxiety) • Antidepressants (i.e. paroxetine, sertraline, venlafaxine, citalopram, escitalopram) or buspirone for more generalized anxiety (see Chapter 6, Mood disorders)
Prostate Cancer—Hormonal Treatment (Medical castration with hormones versus orchiectomy)—Gonadotropin releasing hormone (GnRH) agonists (i.e., leuprolide or goserelin) or antagonists (Degarelix) are used in conjunction with antiandrogenic agents that reduce the availability of adrenal androgens, (i.e., flutamide or bicalutamide). Abiraterone and enzalutamide are new hormonal agents. Abiraterone inhibits Cyp 17 enzymes expressed in testis, adrenals and prostate tumor tissue, decreasing circulating levels of testosterone. Enzalutamide is an androgen receptor inhibitor. Orchiectomy is less often chosen due to body image issues, despite expense of antiandrogenic medications.	
• Erectile dysfunction (ED) and decreased libido; impact on relationships—reluctance to participate in therapy, particularly if they have never done so previously (see Chapter 13, Sexual dysfunction) • Spouses suffer significant distress coping with their husbands' cancer • Fatigue, muscular weakness and inability to conduct prior activities. (see Chapter 10, Physical symptoms) • Concerns about bodily changes with gynecomastia or decreased testicular size. • Contending with hot flashes—Symptoms are: diaphoresis; drenching sweats with insomnia; feelings of intense heat, and chills. • Emotional lability, anxiety, depression and irritability.	• Education and brief psychotherapies: supportive, cognitive-behavioral, and insight-oriented. • Often men are more amenable to psychotherapy if the spouse or partner is present. • Realistic goal setting. • Psychotropic medications can be effective. Start low doses and go slowly (see Chapter 2). • Psychostimulants: methylphenidate (Ritalin®) or modafinil (Provigil®). • Activating Antidepressants: fluoxetine (Prozac®) or bupropion (Wellbutrin®) improve fatigue. • Antidepressants: There have been published positive results with venlafaxine (Effexor®), paroxetine (Paxil®) and sertraline (Zoloft®) improving hot flashes. • Pulse the hormonal therapy in 6–12 month intervals. • Decrease caffeine, alcohol, and hot fluid intake.

(*continued*)

Table 20.2 (Continued)

Issues with Clinical Treatment	Management
• Loss of usual ability to focus and diminished concentration. • Note: Men with a history of depression are at greater risk of becoming depressed and should be monitored for symptoms such as losing interest in pleasurable and meaningful activities, social withdrawal, frequent passive or active thoughts about dying, constant worry about the future as a sacrifice to living a fuller life in the present. • Absent libido. • Feeling emasculated.	• Sex therapy with a trained therapist can help a man express the feelings engendered by ED, and also to help a couple learn alternative ways of sharing sexual intimacy, such as with sensate focus (non-genitalia touching and massaging). See Chapter 13, Sexual Dysfunction.
Prostate Cancer—Chemotherapy	
• Anxiety/fear, fatigue.	• See Chapter 5, Anxiety Disorders and Chapter 10, Fatigue. Consider behavioral activation, psychostimulants for fatigue and cognitive reframing and relaxation exercises for anxiety and fear. Consider lorazepam for anxiety during chemotherapy—it will also help nausea.
Testicular Cancer—Retroperitoneal Lymph Node Dissection (RPLND)	

• Associated with ejaculatory dysfunction, though newer nerve sparing procedures may preserve normal ejaculation. Need to cope with infertility and atypical retrograde ejaculation that is frequently caused by retroperitoneal lymph node dissection, radiation therapy or chemotherapy (though sexual desire and ability to have erections and orgasms are usually not affected). Antegrade ejaculation may return spontaneously, months or years after surgery.	• Individual and couples therapy help patient/couple:
	  • Develop an understanding of problems.
	  • Find new ways of coping.
	  • Adapt to changed situation.
	  • Address infertility and fears about the effects on sexual functioning, especially before a young man has been involved in a long-term sexual relationship.
	  • Role-play different dating scenarios to lessen anxiety.
	  • Individual psychotherapy can help a single or divorced man figure out how to think about and deal with dating and talking about sex with a new partner.

Testicular—Orchiectomy with or without chemotherapy	
• Adjusting to change in appearance due to unilateral orchiectomy.	• Thorough sexual histories should include questions about frequency and intensity of sexual activity, desire, erection, orgasm, and satisfaction. • Artificial testicular implants. • Identifying and dealing with decreased sexual interest and avoidance. • See Chapter 13, Sexual Dysfunction.

(*continued*)

Table 20.2 (Continued)

Issues with Clinical Treatment	Management
• Dealing with the frustration and quality-of-life compromises of late complications of chemotherapy: compromised renal function from cisplatin nephrotoxicity, Raynaud's phenomenon following combinations of vinblastine and bleomycin, and neuropathy and ototoxicity attributable to cisplatin and vinblastine leave patients with secondary deficits that challenge their daily living. • Decreased sexual activity and diminished intensity of orgasm are common problems.	
Bladder Cancer—Radical cystectomy, with or without other treatments (in women also includes hysterectomy, oophorectomy and resection of the anterior wall of the vagina)	
• Sexual and urinary functioning in men affected in a similar fashion to radical prostatectomy. • A large proportion of men suffer erectile impotence, though the incidence is decreasing with nerve sparing techniques. • Major sexual side effect for women is genital pain, particularly during intercourse.	• Men can discuss penile rehabilitation techniques with their urologists. • Use of vaginal dilators, lubricants, and estrogen creams help women overcome the scarring and premature menopause. • See Chapter 13, Sexual Dysfunction.
Bladder Cancer—Ileal loop diversion with creation of a permanent stoma	
• Concerns about embarrassment from odor, leakage, and spills: • Negatively impact sexual function in the patient and partner. • Impact social and work environments. • Commonly cause anxiety, depressed mood, and shunning of social interactions. • Women usually make a better adjustment to the presence of a stoma than men.	• Helped by internal development of urinary reservoirs constructed from bowel. These can be anastomosed to either the skin or urethra. When attached to the urethra, continence can be maintained. This has permitted the creation of the neobladder, with which almost all patients achieve daytime urinary continence, with fewer body image issues than with conduit. • Complications are higher than with the conduit. These procedures obviate the need for an appliance.
Bladder Cancer—Preoperative chemotherapy with or without radiation sometimes used before cystectomy	
• Fear of possible cystectomy after long periods of treatments to save bladder. • Anxiety about unknown future.	• Address fear and anxiety in supportive, cognitive behaviorally oriented psychotherapy. • Medicate, if indicated. • Cf. Chapter 5, Anxiety Disorders.

(*continued*)

Table 20.2 (Continued)

Issues with Clinical Treatment	Management
Renal Carcinoma—Radical nephrectomy for localized disease	
• Complicated by disease-free periods when the person is free of disease after surgery but has the knowledge that recurrence is likely. • The conflict of maintaining hope while understanding discouraging odds results in anxiety and depression.	• See Chapters 5 and 6, Anxiety Disorders and Mood Disorders.
Renal Carcinoma—Preservation with only partial excision of renal tissue	
• Anxiety	Education and Support to maintain realistic hope.
Renal Carcinoma—Chemotherapy	
• Depression, anxiety, cognitive dysfunction, fatigue and delirium.	• Support, behavioral activation or relaxation for anxiety, depressive or fatigue symptoms; consider medications with consideration of renal functioning. • See Chapters 5, 6, and 7 Anxiety Disorders, Mood Disorders, and Cognitive Disorders.
Renal Carcinoma—Immunotherapy, autolymphocyte therapy, vaccines and nonspecific immunomodulators: Interferon-alpha and interleukin-2 (IL-2)	
• (Interferon-alpha and IL-2 have been used with some success in treating advanced renal cancer.) • The first two may be mediated through physical or somatic side effects (e.g., fatigue, fever). • Depression, anxiety, cognitive dysfunction and delirium.	• Prophylactic use of SSRI antidepressants such as paroxetine (Paxil®) decreases fatigue and depression. • See Chapter 2; Chapters 5, 6, and 7, Anxiety Disorders, Mood Disorders, and Cognitive Disorders; Chapter 10, Fatigue.

Management of these problems is best done by means of:

- Education and support about illness and treatment.
- Individual and group psychotherapy.
- Couples therapy.
- Behavioral and relaxation interventions.
- Psychotropic medications for symptoms of distress.
- Referral to a specialist for erectile dysfunction or to a sex counselor.

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Chapter 21

Gynecological Cancer

Mary K. Hughes and Melissa L. Ozga

Introduction

The gynecological cancers (ovary, uterus, cervix, vagina, and vulva) present a special set of psychosocial problems. The problems vary by site, but all women experience a common set of emotional difficulties. Since screening is imperfect and not universally used, diagnosis is sometimes missed and/or delayed. Because gynecological cancer is less common, support from others is less readily available; and it is common to experience guilt, embarrassment, feelings of aloneness, and being misunderstood. By using inclusive and unbiased language, clinicians help patients feel more accepted, that is, they can talk about a patient's partner instead of husband; sexual activity instead of sexual intercourse. Clinicians should recognize and consider female partners to the same extent they would consider a male spouse or partner.[1]

The most common problems and recommended approaches are listed in Table 21.1.

There are **inaccurate or painful associations** of gynecological cancer that contribute to the patient's sense of guilt, fear and isolation. See Table 21.2.

Evaluation

Include a psychiatric assessment as part of the initial work-up so that special attention to patient's distress may prevent major psychological barriers to treatment adherence. See Table 21.3.

Interventions

Interventions that can be initiated by the oncologist are outlined on the following pages in Table 21.4. Guidelines for determining when to refer a patient for psychiatric evaluation or treatment are listed in Box 21.1.

Table 21.1 Gynecological Cancer—Common Problems and Approaches

Problem	Approach
Stigma and embarrassment	Steady support; clear commitment to patient's care and well-being.
Fears of contagion, disability and death	Clear explanations/options/educational resources.
Threat to sexuality, intimacy, fertility, and elimination	Convey sense of being competent and compassionate. Proactively address these issues instead of waiting for the patient to bring them up.
Loneliness, fear, anger, grief.	Referral to community-based psychosocial support programs; when distress is high, consider untreated depression: Offer support, information, and medications as needed.
Loss of control; difficulty for caregiver to ask for help	Let them have control where possible by giving options. Give accurate information.

National Comprehensive Cancer Network (2013). Retrieved September 9, 2013 from http://www.nccn.org/professionals/physician_gls/pdf/distress.pdf

Table 21.2 Myths about Gynecological Cancer

Ovarian, fallopian tube Cancer, peritoneal Cancer	Causes early death
Cervical	Caused by patient's promiscuity or irresponsibility
vaginal, vulvar	Greater feeling of isolation, because these types of cancer are rare

Table 21.3 Initial Workup—Questions for a Quick Psychiatric Assessment

Psychiatry history	Prior substance abuse? Prior psychiatric treatment including complementary interventions? Prior suicide attempt? Family psychiatric treatment?
Social history	Present social support: family, friends, work, church. Is stable support present?
Present coping	Is patient largely dealing realistically with the diagnosis? Treatment plans? Currently using psychotropic medications? Who, what, where, when, and how?
Level of distress[44] (See Chapter 1)	Distress thermometer: "On a scale of 0–10, how distressed are you?" For score of 5 or greater, algorithm indicates referral to mental health or social resources, depending on the cause of distress. Problem list: what are the carriers for distress?

Table 21.4 Gynecological Cancer Interventions

Problem and Causes	Interventions
Anxiety (see Chapter 5, Anxiety) peaks as treatment starts, falls during treatment, then peaks again as it ends	
Fear of illness/death • Preexisting psychiatric disorder (anxiety, panic, phobias, obsessive compulsive) • Withdrawal states • Pulmonary embolus	• Reassurance by team • Medicate appropriately (see Chapter 2): • Benzodiazepine: lorazepam (Ativan®); clonazepam (Klonopin®); alprazolam (Xanax®). • For preexisting or chronic anxiety disorders, add SSRI: fluoxetine (Prozac®); escitalopram (Lexapro) sertraline (Zoloft®); Citalopram (Celexa); Paroxetine (Paxil). • May add SNRI instead: duloxetine (Cymbalta®); venlafaxine (Effexor®). • Others: mirtazapine (Remeron®); hydroxyzine (Atarax®); buspirone (BusPar®). • Antipsychotics: olanzapine (Zyprexa®); risperidone (Risperdol®); Aripiprazole (Abilify); Quetiapine (Seroquel®); chlorpromazine (Thorazine); haloperidol (Haldol®) can be given IV if inpatient. • Insomnia: eszopiclone (Lunesta®); zolpidem (Ambien®); zolpidem SR (Ambien CR); Clonazepam (Klonopin); Lorazepam (Ativan); temazepam (Restoril®); trazodone (Desyrel®); melatonin.
• Medication side effects	• Behavioral techniques for insomnia (sleep hygiene counseling) and anxiety (relaxation techniques). • If anxiety is due to akathesia from phenothiazine or atypical antipsychotic side effects: discontinue phenothiazine and give: diphenhydramine (Benadryl®); benztropine (Cogentin®). Or can use a Beta- Blocker to counter act the side effect of akethesia.
• Hypoxia	• Oxygen
• Fear of recurrence	• Significant concern among these women. Associated with psychological distress, younger patients, more advanced disease, more physical impairment. Cognitive and Social resources to help women process fears. Teaching women ways to share worries with supportive friends and family. Fears diminish with time.
• Pain, uncontrolled; metabolic disorders	• Manage pain, other physical side effects (diabetes, thyroid issues, hypertension). • Refer to mental health professional if symptoms persist.

(*continued*)

Table 21.4 (Continued)

Problem and Causes	Interventions
Depression (see Chapter 6, Mood Disorders)	
• Response to loss of fertility (grief)	• Acknowledge grief; refer to grief counselor or support group. Commitment to continuing cancer care is crucial to coping.
• Changed appearance/role	• Rule out medication causes (steroids); manage pain and other physical side effects.

• Note: symptoms of depression mimic illness-related decreased libido, anorexia, fatigue, insomnia	• Consider medications (see Chapter 2):
	  • SSRI: escitalopram (Lexapro®); fluoxetine (Prozac®); sertraline (Zoloft®); citalopram (Celexa®); Paroxetine (Paxil)
	  • SNRI: venlafaxine (Effexor®); duloxetine (Cymbalta®); desvenlafaxine (Pristiq®).
	  • Others: bupropion (Wellbutrin®); mirtazapine (Remeron®).
	• If fatigue is significant, psychostimulant: methylphenidate (Ritalin®); modafinil (Provigil®); armodafinil (Nuvigil®).

• Sexual dysfunction	• Stress reduction programs, exercise, CBT. • Refer to sexual rehabilitation program, or to marital or psychiatric therapy. See Chapter 13, Sexual Dysfunction.
Sexual Dysfunction- Libido, arousal-vaginal dryness, dyspareunia, orgasm, relationship issues (see Chapter 13, Sexual Dysfunction)	
• Side effect of chemotherapies (neuropathy also affects clitoris)	• Acknowledge sexual changes instead of waiting for the patient to address it.
• Decreased libido • Relationship issues • Change in appearance ("damaged goods")	• Refer to sexual rehabilitation program, or to marital or psychiatric therapy, support groups. Refer to community-based psychosocial support programs (where available).
• Alteration in hormone production	• Information, respect, and support regarding hormone replacement (risks and benefits—cancer/cardiac/cognition/bone) • Complementary/integrative supplements: Soy; Black cohosh; L-arginine; Wild Yam cream
• Shortened vagina • Vaginal stenosis from radiation	• Give vaginal dilators according to radiotherapy guidelines in respective institution. • Vaginal water-soluble lubricants: Astroglide®; K-Y Liquid®. • Natural oils: olive oil, almond oil, coconut oil. • Vaginal moisturizers: Replens®; Vagifem®. • Sensate focus exercises. • Erotic devices
• Change in vulvar sensation postoperative	• Masturbation

(*continued*)

Table 21.4 (Continued)

Problem and Causes	Interventions
Premature Menopause	
• Hot flashes	• Venlafaxine (EffexorXR®). • SSRIs also help with symptoms: fluoxetine (Prozac®). Escitalopram (Lexapro) (see Chapter 2). • Other: clonidine (Catapres®); neurontin (Gabapentin®), Vitamin E, Ginseng, Black cohosh, Wild yam, Soy isoflavones. • Diet: control weight; no caffeine, spicy foods, or alcohol. • Exercise. • Dress in layers.
• Vaginal dryness • Vaginal atrophy • Vulvar atrophy	• Vaginal moisturizers and lubricants. • Estradiol vaginal (Estring® vaginally, Vagifem®); estrogen vaginal cream. • Soy.
• Mood instability	• SSRI: fluoxetine (Prozac®); sertraline (Zoloft®); citalopram (Celexa®); escitalopram (Lexapro®) (see Chapter 2).
• Insomnia	• Counsel on sleep hygiene. • Medicate prn: lorazepam (Ativan®); Clonazepam (Klonopin); zolpidem (Ambien®); temazepam (Restoril®); eszopiclone (Lunesta®); trazodone (Desryl®)
• Migraine headaches	• Rule out metastasis; then treat pain.
• Body aroma change	• Maintain good hygiene, teach self care
• Skin and hair changes	• Body creams and lotions • Scarves, wigs if desired.
Infertility	
• Depression, grief	• Treat depression. • Refer to group.
• Loss of choice	• Surrogacy, adoption. • Preservation of fertility when possible, oocyte cryopreservation and donor egg options.
• Fear of continuing/new relationship (great risk for relationship less than 5 yrs)	• Refer for marital or individual therapy; group therapy.
Survivorship	
• Delayed reactions • Fear of recurrence (late recurrence, 5–10 years, always a threat)	• Continued monitoring. • Reassurance. • Cognitive and Social resources that teach women to share worries about fears of recurrence with supportive friends and family. • Refer for counseling, relaxation techniques.

(*continued*)

Table 21.4 (Continued)

Problem and Causes	Interventions
• Slow progression creates profound, intense therapeutic situation: • Early recurrences—cancer as chronic disease • Later recurrences— quality versus duration of life	• Change treatment options. • Comfort care. • Address communication issues.
• Preparing for dying and death • Hypervigilance • Family/friends	• Coordination with hospice, nursing staff.
• Dating issues, e.g., when/how to tell new partner?	• Medicate anxiety. • Support groups.
• Sexual dysfunction	• Support groups
• Body image	• One-on-one support from another patient.
• Medical sequelae of treatment	• Refer for sexual counseling/psychiatric intervention.
• Neuropathy	• Neuropathies: neurontin (Gabapentin®); amitriptyline (Elavil®); duloxetine (Cymbalta®); venlafaxine (EffexorXR®) (see Chapter 2).
• Cardiac • Bowel (long-term effect of radiation)	• Treat diarrhea/constipation with medication, diet. • Monitor.
• Bladder (Incontinence, urgency, increased UTIs)	• Kegel exercises. • No caffeine. • Incontinence pads.
• Bone	• Bone density at baseline and annually. • Medicate: alendronate (Fosamax) weekly or daily; pamidronate. (Aredia) IV monthly; zoledronic acid (Zometa) IV monthly. • Calcium + Vit. D- 1000 mg/d; calcitonin Nasal spray daily. • Tobacco avoidance. • Daily weight-bearing exercise.
• Cognitive	• Neuro-cognitive testing before and after treatment.

Adapted from references 2–10.

Box 21.1 When to refer patients for psychiatric evaluation or treatment

- Patients experiencing intense or overwhelming anxiety or any other symptoms of:
  - Major denial
  - Dissociation
  - Psychosis
  - Delirium (disorientation, confusion, memory problems).
- Patients with previous history or family history of:
  - Depression
  - Suicide attempt
  - Substance abuse
  - Psychiatric hospitalization.
- Patients who during cancer treatment require maintenance of:
  - Psychotropic medications
  - Steroids.
- Patients displaying hostile or inappropriate behavior toward family or staff.
- Patients experiencing difficulty making treatment decisions or complying with treatment.
- Patients dealing with other concomitant life stressors.
- Patients who have special issues with regard to:
  - Age
  - Fertility
  - Support
  - Beliefs
  - Previous experience with cancer
  - Previous experience with death in the family.
- Patients considering higher-risk decisions about fertility preservation versus cancer treatment.
- Patients considering end-of-active treatment decisions.

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Chapter 22

Head and Neck Cancer

Jeremy W. Couper and David W. Kissane

The rate of adverse psychological and psychiatric disorder associated with head and neck cancer (HNC) is among the highest of all cancers.[1,2] At the same time, cancer survival rates for HNC are relatively favorable (approximately 60 percent 5-year survival rate). Failure to manage HNC patients' psychological distress or treat psychiatric disorder has been shown to lead to increased length of hospital stay, more treatment complications, increased noncompliance with treatment protocols, and higher risk of suicide.[3,4]

HNC is treated with surgery and/or radiotherapy. In many cases, chemotherapy follows or is combined with radiotherapy. There is a strong association of the incidence of HNC with a prior history of smoking and heavy alcohol use.[5] In recent years, a separate category of HNC has emerged associated with prior infection with Human Papilloma Virus (HPV).[6] HPV HNC patients tend to be younger, more often female, in better general health and do not have the strong association with smoking and alcohol use of non-HPV HNC patients.

Depression and Anxiety

Acute anxiety states, in the form of phobic reactions, sometimes occur when patients are confronted with the need to be held motionless in a prone position for radiotherapy planning and treatment. Behavioral strategies or anti-anxiety medication may be needed to allow treatment to proceed.

Prospective studies of HNC patients have shown that depressive symptoms frequently emerge in the months following treatment and can compound difficulties in maintaining adequate fluid and calorific intake to support physical recovery.[7] Anxiety symptoms often endure beyond a year posttreatment.[8] Issues of fear of cancer recurrence, especially at times when oncology review appointments are scheduled, may begin to develop in the years following treatment.

Due to the high rates of depression and anxiety in HNC survivors, preventative psychological and pharmacologic interventions have been trialed. Escitalopram has shown promise preventing depressive states developing in nondepressed HNC patients.[9] In HNC, it is generally advised to avoid those antidepressants and antipsychotics with strong anticholinergic effects that exacerbate xerostomia caused by radiotherapy and/or surgery. Tricyclic antidepressants should be avoided in HNC for this reason. Selective serotonin reuptake inhibitors (SSRIs; such as Escitalopram),

serotonin and norepinephrine reuptake inhibitors (SNRIs; such as Venlafaxine) are recommended.

The few psychological intervention trials that have been done in HNC confirm the efficacy of psycho-educational strategies, cognitive-behavioral therapy, coping skills, and problem-focused interventions.[5] In view of the communication difficulties that many HNC patients experience early in treatment, mindfulness-based stress reduction approaches, which have been used successfully in other cancers, have a role.

Demoralization may develop in view of multiple losses and ongoing challenges of living with effects of treatment. Some HNC patients may require longer-term expert psychological therapeutic intervention to assist them to adjust to these issues and to help them return to healthy aspects of their life before cancer. See Table 22.1.

Nicotine and Alcohol Cessation

A history of prolonged heavy alcohol use, especially involving spirits, is associated with an increased incidence of HNC as well as with mood and anxiety disorders. The association of HNC and smoking is even stronger (see Table 22.2).

Table 22.1 Treatments for Psychosocial Issues with Head and Neck Cancer

Distress, anxiety and depression[5,9] (see Chapters 5 & 6, Anxiety disorders and Mood disorders)	• Phobic response to being placed in radiotherapy molds—Breathing and relaxation training and/or Lorazepam 1–3 mg half hour before procedure. • Check for depressive symptoms and social withdrawal. • Explore role of family and friends, partner. • Ask about sexual functioning as a marker for adaptive rehabilitation. • Check for demoralization or loss of meaning. • Treat major depression with Escitalopram 10–20 mg daily or other SSRI or SNRI.
Patient attitudes about goals and quality of life[10]	• Cure: 75% of patients rank first; 93% rank in top 3 • Long life: 56% rank in top 3 • Free of pain: 35% rank in top 3 • Normal energy and activities: 24% rank in top 3 • Swallowing, speech, appearance, chewing: 10–20% rank in top 3
Advanced disease of the head and neck—associated with trismus, xerostomia, sticky saliva	• Social withdrawal and stigma, swallowing and speech problems
Quality of Life measures	• Shame and Stigma Scale[11] • EORTC Head and Neck Module[12] • FACT Head and Neck Module[13]

Patients need to cease smoking and alcohol consumption prior to commencing HNC treatment. Pharmacological and psychological strategies are often needed to assist patients with acute withdrawal symptoms. Prophylactic lorazepam may prevent postsurgical delirium tremens for heavy drinkers.

Resumption of nicotine and/or heavy alcohol use after cancer treatment will interfere with recovery and increase risk of both recurrence and new primary cancers. Depressed HNC patients are more likely to resume

Table 22.2 Treatment Strategies for Nicotine and Alcohol Withdrawal

Smoking Cessation	Treatment Strategies
Nicotine withdrawal—85% of non-HPV HNC associated with prior tobacco use.	Pharmacotherapy Anticraving medication • bupropion (Wellbutrin SR®) 150 mg/day for 3 days, then 150 mg bid for 3 months • Benzodiazepines for anxiety • lorazepam (Ativan®) 0.5 mg–1.0 mg bid (12-hour half-life) • clonazepam (Klonopin®) 0.25 mg–1.0 mg at bedtime (24-hour half-life) • Nicotine replacement therapy—Do not use nicotine replacement if plastic surgery involves free flap as vasoconstriction may damage graft: • Dosage for Patch (Nicoderm CQ®, Prostep®, Nicotrol®): • If smoking 11 cig/24 hr or less: give 21 mg/24 hr (6 weeks); then14 mg/24 hr (2 weeks); then 7 mg/24 hrs (2 weeks) • If smoking 10 cig/24 hr or more: give 14 mg/ 24 hrs (6 weeks); then 7 mg/24 hrs (2 weeks) or with Nicotrol® -15 mg/16 hrs (6 weeks); 10 mg/16 hrs (2 weeks); 5 mg/16 hrs (2 weeks) • Dosage for Inhaler (Nicotrol® Inhaler—buccal absorption from puffs) 6 to 16 cartridges per 24 hr period—several inhalations over 20 minutes (Up to 6 months)
Continued smoking increases rates of recurrence and second primary cancers.	Motivational counseling • Identify stage: precontemplative, contemplative, ready • Promote increase in motivation with education regarding risks
Up to 33% continue or relapse with tobacco use.	Behavioral counseling • Identify cues, social circumstances, triggers to reduce smoking. • Explore avoidance.
Risk factors for continued smoking include less severe disease (e.g. mouth compared to larynx) and less extensive treatment, younger age and heavy smokers (greater dependence).	Cognitive therapy • Evaluate self-esteem, self-beliefs. • Affirm strengths while countering negative attitudes.

(*continued*)

Table 22.2 (Continued)

Alcohol Withdrawal	Treatment Strategies
One standard drink contains 10 g of alcohol (285cc of full-strength beer, 100cc of wine or 30cc of spirits). Withdrawal symptoms usually appear within 6 to 24 hours of the last consumption of alcohol and typically persist for 72 hours, but may last longer. Best practice: identify high risk patients ahead of admission and plan a prophylactic regimen of medication to suppress or modify withdrawal symptoms in vulnerable patients.	Potential prophylaxis regimens include: • Shorter-acting benzodiazepine if there is concern about liver function or respiratory function, e.g., lorazepam (Ativan®) 2 mg q 6 h for 4 doses, then 1 mg q 6 h for 8 doses • Longer-acting benzodiazepine if there is no concern about liver function or respiratory function, e.g., diazepam (Valium®) 10 mg q 6 h for 4 doses, then 5 mg q 6 h for 8 doses Add Thiamine and B group vitamins
Acute withdrawal symptoms: tremor, sweats, anxiety, agitation, nausea and vomiting	Symptomatic management: • Shorter-acting benzodiazepines if concern about liver function or respiratory function: lorazepam (Ativan®) challenge—2 mg hourly until patient becomes settled, sleepy, but arousable. Take the total dose needed to achieve a sleepy state and divide into a 6 hourly regimen for the next day. Taper over 3 subsequent days. • Give intravenous fluids, thiamine, folate, and multivitamins as indicated.
Severe withdrawal symptoms: perceptual disturbances and seizures; delirium tremens, wherein disorientation, confusion and hallucinations also emerge	Longer-acting benzodiazepine if there is no concern about liver function or respiratory function: diazepam (Valium®) 10–20 mg, 1–2 hourly until symptoms subside and a sleepy state is induced. A cumulative dose of 60 mg usually is sufficient. Taper over 3 subsequent days. If agitation and hallucinations emerge, add haloperidol (Haldol®) 0.5–2 mg tid to qid. Consider a gabapentin (Neurontin®) regimen if there is considerable concern about liver function.
Medical emergency: fever, tachycardia and dehydration	Emergency medical treatment.

smoking and alcohol,[5] further underlining the importance of early psychological and psychiatric intervention, including preventative measures for depression for those most at risk.

Disfigurement

Radiotherapy often leads to marked and very noticeable reddening of the face in the latter part of the therapy and for some weeks after completion,

but patients can be reassured that it will resolve. Looking at the face in a mirror with the patient and a frank discussion about how to explain it to family, friends, and work colleagues is recommended. Use of scarves or clothing to help conceal reddened areas can be helpful. Similarly, acute swelling of the face postsurgery can be managed with concealment.

Scarring or enduring alteration in the appearance of the patient's mouth or face postsurgery can lead to a difficult adjustment for many patients, especially younger patients. Ongoing contact with the patient and discussion with surgeons about cosmetic surgical revisions will help patients adjust to these changes. Rehearsing how to explain altered facial appearance at job interviews or when meeting new people can be useful.

Eating and Swallowing

Postsurgical swelling, painful scars, and altered anatomy and sensation, when such things as skin flaps are deployed, can all represent challenges for normal eating and swallowing. Radiotherapy can lead to painful swallowing due to mucositis, xerostomia, and temporarily altered function of the oro-pharyngeal musculature. Adequate pain relief during treatment and recovery is very important. The loss of the sense of taste and smell can spoil enjoyment of food. The need to take nutrition as fluid or as a soft diet can also make it difficult to maintain adequate calorific intake. Many patients will require a nasogastric or Percutaneous Endoscopic Gastrostomy (PEG) feeding tube for a period of their treatment, which may make eating in public or anywhere outside the home unappealing. Encouragement and reassurance of the patient and regular contact with family and other carers is very important during this phase to prevent demoralization.

Speaking

Short-term difficulties speaking are common postsurgically and during and shortly after radiotherapy. Use of white boards or electronic devices to communicate and assistance with some simple sign language can be helpful. An inability to communicate verbally can make patients vulnerable to feeling socially isolated and can compound feelings of depression and anxiety and also hinder psychological interventions.

Total laryngectomy and permanent tracheostomies are much less common with modern surgical techniques, but nevertheless many patients will experience a change in the quality and loudness of their voice postsurgery. This may have implications socially and occupationally.

Breathing

Tracheostomies and other forms of changed airway anatomy and function can lead to noisy breathing or frequent coughing, which may require the

patient to learn strategies to minimize embarrassment or withdrawal from social and work interactions.

Physical Intimacy

Communication difficulties, pain, changed appearance, and difficulties eating can all have an impact on intimate aspects of a patient's relationship with their partner. Meeting the couple regularly, with encouragement of direct communication about disfigurement and the need to preserve affection, including resumption of sexual relations, is important. Practical problem-solving techniques should be encouraged, such as having water by the bed if the patient has xerostomia and is finding kissing difficult or awkward. If HPV HNC has been identified, steps can be taken to immunize the patient's partner if they have not been previously exposed.

Social Support

Radiotherapy protocols require daily attendance or admission to hospital and frequent appointments with doctors, nurses, and allied health to manage the adverse effects. Patients who live far from cancer centers can become disconnected from their family and social supports for many weeks or months during the treatment process or can become displaced if their accommodation is transitory. Advocacy for patients as they recover from cancer treatment is important, especially if they have continuing communication difficulties and/or are embarrassed by changed appearance and function.

Return to work may also require discussions with supervisors, rehearsing how to manage work-related situations and use of communication aids when appropriate.

Social Stigma

Government-subsidized antismoking advertising campaigns in many jurisdictions can increase the sense of shame and embarrassment of HNC patients, who often cannot conceal the fact that they have a smoking-related cancer when in public settings, increasing their psychological burden and vulnerability to depression and anxiety.

Growing public awareness of the association of HNC with HPV, which is transmitted through oral sexual contact, is creating a further source of social stigma in HNC. The U.S. actor Michael Douglas' widely reported diagnosis with HPV HNC in 2010 has ensured the public's awareness of the association of HNCs with patients' prior history of sexual contacts.

Frank discussion about how the patient might deal with disparaging comments or other reactions from strangers to their appearance may help empower the patient and reduce anxiety. See Table 22.3.

Table 22.3 Difficult Symptoms for Distressed Head and Neck Cancer Patients

Symptom/ Problem	Treatment
Disfigurement and body image[11]	• Sensitivity to shame and stigma • Sit with patient and mirror to discuss appearance when dressings have been taken down • Promote control, shared decision-making, and openness to wear prosthesis
Xerostomia—lack/thickening of saliva, especially after radiotherapy (affects speech, mastication, and swallowing)	• Prophylactic amifostine during radiation treatment may reduce • Dry mouth can be relieved by artificial sialogogues; frequent drinks; and pilocarpine (Salagen®) 2.5, 5.0, 10 mg, tid to stimulate saliva (side effect: sweating)
Trouble swallowing psychotropic medications	• The following medications are sublinqual or swallowed more easily: • For depression: mirtazepine (Remeron®) sol tabs, sertraline (Zoloft®) liquid, paroxetine (Paxil®) liquid • For anxiety: clonazepam (Klonopin®) Wafers • For restlessness: olanzapine (Zyprexa®, Zydis®), risperidone (Risperdal®) M-tabs
Local mouth pain Nutrition problems	• Equal parts of 2% viscous lidocaine (Xylocaine®), diphenhydramine (Benadryl®) and aluminum hydroxide—magnesium hydroxide (Mylanta®)—10 ml of mouth wash/ gargle for 60 seconds pre-meals, and bedtime q 3 h • benzocaine (Orajel®) ointment on tongue • Consider Percutaneous Endoscopic Gastrostomy (PEG) versus nasogastric feeding. • Use food diary, supplements, nutritionist; maintain pre-surgical weight. • Dumping Syndrome: decrease fluid with frequent small meals. • Refer to speech pathologist for swallowing rehabilitation.
Dysphagia Tracheostomy	• Change from cuffed to uncuffed 5–7 days post surgery. • Suctioning every 2 hours; clean inner canula every 4 hours. • Aerosol bronchodilator (eg. albuterol)
Intraoral obturators and dental prosthetics	• Obturator plates close defects; irrigate with mixture of 1 quart water, 1 teaspoon baking soda and 1 teaspoon salt
Mucositis	• Water and salt rinses; sucralfate (Carafate®) oral suspension • benzydamine 0.15% solution, rinse q 3–6 h
Skin Care	• hydrophilic gels (aloe vera) tid; sunscreens long term • Long-term dry desquamation: add 0.5% hydrocortisone cream • Moist desquamation: silver sulfadiazine (Silvadene®) ointment; nonstick dressings

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Chapter 23

Hematological Cancer

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The diagnosis of hematological cancer often means the experience a whole variety of emotions. These may include shock, anxiety, sadness, relief, uncertainty, and for some people, depression. It can result in fear and pessimism due to the wide perception that diseases of the blood are serious and often fatal. Treatment decisions must sometimes be made quickly before the patient and family can process the emotional impact of the diagnosis. Others must deal with "watchful waiting" despite hearing what they perceive as a dire diagnosis. Patients consent for intensive treatment with the hope of achieving remission or cure while at the same time fearing death, discomfort, dependence on others, and coping with disruptions in their lives. Chronic forms of these malignancies often have many treatment options. The prolonged course makes patient's realization of a terminal phase difficult. See Boxes 23.1–23.2.

Hematopoietic Stem Cell Transplant (HSCT)

Hematopoietic stem cell transplant (HSCT) is an aggressive treatment that offers potential cure for a variety of diseases mainly hematological malignancies: leukemia, lymphoma, myelodysplastic syndrome, aplastic anemia, and multiple myeloma. Approximately 50,000 people undergo hematopoietic stem cell transplantation (HSCT) worldwide each year. Of these, the National Marrow Donor Program (NMDP) reports approximately 20,000 allogeneic transplants in the United States annually. Advances in transplantation techniques have led to improvement in long-term survival among patients undergoing HCT. However, significant risk of acute complications and late side effects can negatively impact quality of life among long-term survivors. HSCT patients face physical and psychological stressors pre-, peri- and posttransplantation.

HSCT face physical and social isolation for weeks to months: treatment away from home, family, and friends in cancer centers; painful side effects, mucositis, fatigue, and infections that complicate coping; long periods of enhanced susceptibility to infections; increased dependence on others with stress on caregivers during hospitalization and the first 100 days after transplant.

Although, HSCT is a potentially curative therapy for many hematological disorders, the morbidity and mortality associated with it remains

Box 23.1 Psychosocial Problems Common to all Hematological Malignancies

- Diseases of the "blood stream" and lymph nodes are highly feared by the public.
- Disease that is systemic and not localized to any single part of the body; it cannot be "cut out" like solid tumors.
- Fears of disability and death.
- Uncertainty of future for self and family.
- Disrupted life plans/education/career or job/retirement.
- Fear of pain.
- Loss of control and helpless feelings.
- Fatigue and diminished energy; anemia is often chronic and debilitating.
- Fear of blood transfusions.

Box 23.2 Overriding Psychosocial Problems with Hematological Malignancies

- Impact on fertility; risk that disease or treatment may injure future offspring.
- Impact on sexuality; premature menopause and decreased libido.
- Posttraumatic distress disorder symptoms after all intensive therapies.
- Financial concerns, especially for breadwinner.
- Isolation and separation from others with aggressive therapies to decrease infections.
- Fears of "chemo brain," cognitive impairment from treatment or illness.
- Changes in appearance and body image.

important. This decision is not only dependent on biomedical criteria but also on psychosocial issues. It is a complex process that includes different variables, such as age, family support, medical and psychiatric comorbidities.

Given the length and intensity of treatment, it is important to have a thorough pre-transplant psychosocial evaluation to identify those at risk for development of psychosocial morbidity and to initiate early interventions to optimize adaptation to illness and treatment.

During hospitalization, patients cope with prolonged periods of isolation with restrictions on visitors and mobility, side effects of chemotherapy and radiation, and diminished stamina and cognitive activity. Oral mucositis is the most distressing side effect of myeloablative regimens, and necessitates use of analgesics and reliance on total parenteral nutrition. See Table 23.3.

Opioid analgesics used to treat mucositis pain may cause visual hallucinations, confusion, disorientation, vivid frightening dreams, impaired

Table 23.1 Treatments for Psychological/Psychosocial Problems Associated with Distinct Hematological Malignancies

Characteristics/Clinical Treatments	Psychological/Psychosocial Treatments
Acute Lymphoblastic Leukemia (ALL)	
• Clinical presentation is nonspecific: fatigue, fever, night sweats, weight loss, dyspnea, dizziness, infections and easy bruising or bleeding. Hepatomegaly or lymphadenopathy is only present in 20%. Diagnosis requires demonstration of > 20% of bone marrow blasts. • Median age at diagnosis is 13 years; 60% of patients diagnosed at 20 years, 23% are diagnosed at 45 years or older. Peaks in adults around 50–60 years of age. • Survival rates have improved dramatically due to understanding molecular genetics and pathogenesis. • Cure rate in children with ALL is approximately 80%. • Immunophenotyping and work-up. • Assessment of prognostic factors and risk stratification. • Treatment induction. • CNS prophylaxis and chemotherapy and tyrosinase kinase inhibitor or clinical trial. • CNS treatment and prophylaxis Intrathecal methotrexate continues throughout induction/consolidation/maintenance with single or combination agents including methotrexate/cytarabine/steroids/radiation. • Consolidation for further eradication of residual disease. • Maintenance to prevent relapse and targeted agents. • Consideration of allogeneic stem cell transplant (SCT) for high risk patients; debate about prognostic factors of allogeneic bone marrow transplant (BMT). • Maintenance treatment for two years of combination chemotherapy. • Allogeneic stem cell transplant for patients in second remission, phase I and II trials of new agents for treatment resistant ALL when potentially curative allogeneic BMT is not possible.	• Support for patient and caregiver through intensive multichemotherapy; induction, consolidation (with CNS prophylaxis) and intensification, and maintenance. • Help facing treatment toxicity and mortality. Dealing with side effects of induction therapy (vincristine, prednisone, and anthracycline) and consolidation. • Monitor mood, fatigue, neuropathy, constipation, infections, disseminated intravascular coagulation (DIC), and compliance with frequent hospitalizations, clinic visits, and white cell growth factors at home. (See Sections II and III.) • Treat with antidepressant and anti-anxiety agents. Psychostimulants for fatigue; steroid-related mood and sleep disorders treated with mood-stabilizing neuroleptics. (See Chapters 5, 6, and 7, Anxiety, Mood Disorders, Cognitive disorders.) • Monitor mood states and cognitive deficits (concentration, memory, confusion). (See Chapter 7, Cognitive Disorders.) • Adequate information about benefits and risks versus continued chemotherapy to make informed decisions. • Family/donor issues for allogeneic SCT. • Coping with uncertainty of future. • Coping with relapse, which is common; symptoms of fatigue, cognitive deficits. • Dealing with uncertainty; commitment to long- term treatment and prolonged disruption of life tasks. • Disappointment of relapse and dealing with fears of finding a donor for transplant and its many unknowns. • Awareness of protocols in ALL—maintains hope in the face of poor prognosis.

(*continued*)

Table 23.1 (Continued)

Characteristics/Clinical Treatments	Psychological/Psychosocial Treatments
Acute Myeloid Leukemia (AML)	
• Most common cause of Leukemia. • Characterized by clonal expansion of myeloid blasts in the peripheral blood, bone marrow, and/or other tissues. • The median age of diagnosis is 67 years, with 54% of patients diagnosed at 65 years or older. • Identification of karyotypes is the single most important prognostic factor. • Induction more intensive and relapses are often earlier than for ALL. Prognostic groups better defined for AML. • Awareness of high relapse rate; higher treatment morbidity/mortality over 60. • Treatment is generally consolidated into less than one year; usually includes cytarabine and anthracycline. • Consideration of transplant options; mini- transplants now an option for older patients. • Multiply relapsed AML and not a candidate for transplantation: Investigational protocols.	• Adaptation to diagnosis of AML often in context of bruising, bleeding, fatigue, fever, transfusions, DIC, and low platelet counts. • Emotional support for patient and caregiver. • Treat fatigue, depression, anxiety, insomnia, anorexia, and pain. (See Sections II and III.) • Help with risk–benefit analysis to facilitate decision making about investigational protocols (quality versus quantity of life), supportive symptom control, existential concerns for patient and caregiver; anticipatory grief-referral for support.
Chronic Lymphocytic Leukemia (CLL)	
• Most common adult leukemia; often asymptomatic in older adults (median age 65); no treatment until symptomatic from the disease • Advanced stage: Investigational protocols; new therapies available offer reason for hope despite advancing disease.	• Support for patients who are unable to tolerate "watchful waiting" without treatment • Anxiety about clinical progression with symptoms of night sweats, weight loss, anorexia, and infections • Supportive symptom control: Fatigue (psycho-stimulant), insomnia (hypnotics), depression, anxiety (antidepressants and anxiolytics), pain control, demoralization common with decreased ability to function and to enjoy activities; erythropoietic growth factor important to control fatigue. (See Sections II and III.)

(*continued*)

Table 23.1 (Continued)

Characteristics/Clinical Treatments	Psychological/Psychosocial Treatments
Chronic Myelocytic Leukemia (CML)	
• CML accounts for 15% of adults with a median age of disease 67 years. • Characteristic for the translocation of chromosome 9 and 22 (t9-22) and the formation of Philadelphia chromosome resulting in the gene fusion BCR-ABL. • Treatment with TKI 9 tyrosine kinase inhibitor for + BCR-ABL. • Chronic Phase: More common in older adults (median age 60's); Treatment with imatinib (Gleevec®). • Hydroxyurea may be used transiently with Gleevec®; new investigational agents designed for Gleevec® resistance. • Consideration of SCT for younger patients with early failure and HLA-matched sibling donor. • Accelerated Phase: Higher dose imatinib (Gleevec®); chronic phase and Phase II studies in trial for Gleevec resistance. Realization of need for SCT. Possible intensive chemotherapy (cytarabine/anthracycline or vincristine/prednisone) prior SCT to regain chronic phase. • Blastic Phase: Responses are short; consideration of transplant but with limited expectations of benefit. Need for chemotherapy similar to "accelerated phase" to try to achieve remission. High rates of failure with any therapy.	• Control drug side effects (muscle cramps, rash, GI upset, weight gain and edema) with supportive measures. • Patients often have significant worries about what happens when/if Gleevec® doesn't work. • Emphasize compliance with medication even when patients "feel normal." • Assist patient and family to assess benefits (possibly curative) against risks of SCT to facilitate decision making about the transplant. • Treat symptoms related to chemotherapy—fatigue, fevers, etc. (See Chapter 11, Fatigue.) • Increased awareness/need for counseling related to existential concerns. • Help sustain hope by providing information about trials. • High dose Gleevec® has greater effect on quality of life. • Counseling for anticipated grief; support for caregiver/family.
Hodgkin's Disease	
• Occurs at younger adult age (third decade peak), and after 45; associated with good prognosis and high cure rate. • Limited Early Disease: Radiation therapy alone. • Intermediate or advanced disease: ABVD, or alternating with MOPP; and combined modality with radiation (ABVD is adriamycin, bleomycin, vinblastine, dacarbazine; MOPP is mechlorethamine, vincristine, prednisone, procarbazine). • Recurrent disease: High dose chemotherapy with autologous SCT	• Patients have fewer fears of death, but focus on treatment side effects (short and long term). • Fear of future for children and family. • Symptom control measures: fatigue (psycho-stimulant), anxiety, depression, insomnia, nausea, esophageal symptoms. See Section III). • Treat immediate symptoms of therapy-fatigue, nausea, neuropathy, constipation. (See Section III). • Help in coping with infections, hospitalizations and especially in young patients with change in body image. Treatment given as outpatient is very disruptive to normal life.

(*continued*)

Table 23.1 (Continued)

Characteristics/Clinical Treatments	Psychological/Psychosocial Treatments
• Long-term sequelae: Cardiac, fertility, secondary malignancies, hypothyroidism	• Assist patients and families with concerns about less intensive therapy and risk of relapse versus more intensive therapy early and its potential long-term effects such as sterility and late secondary malignancies. • Reassurance of potential cure. • Assist patients and family in dealing with hospitalizations and long confinement, disruption of routine life, and some uncertainty of cure. • Evaluate psychosocial factors prior to transplant; monitor symptoms during SCT. • Monitor for signs of delirium secondary to opioids/infection-treat with neuroleptics. • Optimize pain control; fatigue management options. • Some combination regimens cause sterility; sperm-banking for men, adequate information for women (counseling regarding fertility options), sexual dysfunction. • Monitor thyroid and other endocrine abnormalities and related mood disorders. • Monitor treatment-related posttraumatic stress disorder symptoms.
Non-Hodgkin's Lymphoma	
• Most common in older adults and men. • Indolent Lymphomas: May be curable or quite indolent • MALT Lymphomas—may be associated with certain infections and autoimmune disease. Often localized at diagnosis; surgery or radiation therapy; may be curable at early stage. Alkylating agents and fludarabine used systemically for more advanced disease. • Low Grade Follicular—early stage may be curable with radiation. • Advance stage indolent lymphomas: Single agent and combination chemotherapy; involved field radiations, monoclonal antibodies; autologous or allogeneic SCT; may transform to diffuse large cell.	• Information about type of lymphoma and treatment options. • Emphasize appropriate early treatment for improved outcome in many early stage lymphomas. • Treatment of associated diseases. • Adapt to side effects of local surgery and radiation. • Assist patient in being informed about appropriate therapy, adjusting to diagnosis, and pursuing treatment quickly. • Help adapt to "watchful waiting" without treatment for advanced stage. • Treat when symptoms develop. • Assure that patient understands options. • Information about treatment options.

(*continued*)

Table 23.1 (Continued)

Characteristics/Clinical Treatments	Psychological/Psychosocial Treatments
• Aggressive Lymphomas: Diffuse Large B-Cell; CHOP (cyclophosphamide, doxorubicin, vincristine, prednisone) and rituximab, other combination chemotherapy and autologous/ allogeneic SCT; potentially curable. Treatment is initiated early with combination chemotherapy and SCT. • Mantle Cell: Combination chemotherapies and monoclonal antibody (CHOP and rituximab) or hyper CVAD +/- autologous transplant; aggressive form not curable. • For aggressive lymphomas: increasing use of FDA approved monoclonal antibodies: rituximab, 90Y-ibritumomab, 131I-tositumomab, Alemtuzumab.	• Supportive symptom control (fatigue, pain, insomnia, neuropathy) from disease and therapy. • Monitor for development of depression and anxiety. • Risk of graft vs. host disease with physical and psychological sequelae following allogeneic transplant. • Symptom control (pain, fatigue, insomnia, cardiac toxicity, alopecia), demoralization related to aggressive treatment. • Hematopoietic growth factors to reduce toxicity of treatment. • Symptom control (pain, fatigue, insomnia, cardiac toxicity, alopecia), demoralization related to aggressive treatment. (See Section III.) • Counseling for distress related to poor prognosis; existential concerns; symptom control; monitor for steroid- related mood disorders. • Better tolerated regimens and better quality of life during treatment, but uncertainty about outcome and duration of response.
High Grade Lymphomas	
• Burkitt 's lymphoma and lymphoblastic lymphoma are potentially curable with intensive chemotherapy. Allogeneic transplant for patients with poor prognostic features. Need for CNS prophylaxis in some patients.	• Monitor coping with treatment side effects.
Multiple Myeloma	
• Occurs in older men and women (median age is in 60s). • Responses are transient and not curative. • Early disease: Asymptomatic "watchful waiting." • Symptomatic disease: Pain, fractures, anemia, infections; treatment with melphalan +/- prednisone, high dose VAD (vincristine, doxorubicin (Adriamycin®), dexamethasone), high dose steroids, and autologous SCT.	• Monitor adaptation to a disease known not to be curable. • Managing anxiety related to not being in active treatment. • Monitor for development of depression and anxiety, treat with anti- anxiety/anti depressant agents. • Coping with chronic illness with uncomfortable physical symptoms: bone pain/fragility/ fractures (optimize pain control), infections (prophylaxis-antibiotics and immunoglobulin), neutropenia (G-CSF).

(*continued*)

Table 23.1 (Continued)

Characteristics/Clinical Treatments	Psychological/Psychosocial Treatments
• Relapsed myeloma: Newer therapies approved by the FDA Thalidomide, *Lenalidomide* and bortezomib (Velcade®) with dexamethasone; autologous, tandem stem cells or allogeneic SCT in younger patients. • Survival rate has increased from 25% in 1975 to 34% in 2003.	• Monitor for signs of demoralization/depression (antidepressant); mood/cognitive changes related to hypercalcemia, opioids and steroids; fatigue (psychostimulant). (See Sections II and III.) • Counseling to find meaning despite chronic illness. • Optimize symptom control (pain, fatigue, insomnia, peripheral neuropathy). (See Section III.) • Monitor for steroid- related changes in mood and cognition. • Drug related effects: thalidomide—asthenia, neuropathy, constipation, headache. • Bortezomib effects: edema, mood change, pain, GI changes, anorexia.

Table 23.2 Pretransplant Psychosocial Evaluation (instead of Pretransplant Psychiatric Evaluation)

General Considerations	Specific Evaluation	Patient's Primary Caregiver
• Adequate understanding of procedure • Good to excellent physical and physiological condition, using Karnofsky performance scale (KPS) • Ability to collaborate with the team in long-term care relationships • Predictors of nonadherence with treatment • Encouragement of robust support networks • Psychiatric comorbidity • Medical comorbidities such as pre existing dementia.	• Psychiatric and substance abuse history • Psychosocial history • History of trauma • Prior history of coping with illness and treatment • Compliance with past treatments • Health behaviors • Understanding of illness and treatment (appropriate to education level) • Mental status, current psychiatric symptoms • Ethnic, cultural, spiritual considerations that may affect treatment • Concern about relapse, fear of death • Concurrent stressful life events	• Regularly assess level of caregiver psychological adjustments and family functioning • Quality of relationship • Availability of support for primary caregiver • Other responsibilities (in addition to caring for patient) • Understanding of patient's illness and treatment • Health and emotional concerns • Coping styles • Concurrent stressful life events

Table 23.3 Psychosocial Concerns of HSCT Survivors

Physical Problems/ Medical Concerns	Psychological Problems	Community Reintegration Problems
• Fatigue • Treatment-related deconditioning • Appearance changes • Continued health problems • Eating and sleeping problems • Physical restrictions • Sexual dysfunction and satisfaction: • Infertility • Immunosuppression, vulnerability to infections • *Distressing cognitive side effects*	• Fear about future (impact of illness on life span, finances, family, work, academic goals) • Fear of relapse, fear of death • *Difficulty resuming former roles.* • *Sense of isolation and stigmatization* • Feeling more cautious, hypervigilance regarding physical symptoms • Fear of delayed treatment related side effects (graft vs. host disease, cataracts, organ damage, secondary malignancies) • Guilt (survivor guilt, family burden, perception of diminished contribution to family and society) • Anger • Diminished self-worth (as damaged by treatment) • Anxiety and depressive symptoms • Intrusive recollections of noxious treatment	• Return to former roles (parenting, spousal, work, community) • Resumption of social relations (rejection sensitivity, social withdrawal) • Stigmatization, employment and insurance discrimination • Relationship problems • Financial insecurity (treatment related expenses/debt, reduced earning potential)

concentration and memory. Monitoring for states of confusion related to opioid use; metabolic, renal, and hepatic abnormalities; and infection is important during chemotherapy and HSCT. The use of antipsychotics such as Haldol, Zyprexa is commonly used to treat delirium.

HSCT patients also experience decline in neurocognitive function with up to 60% of patients manifesting mild to moderate cognitive impairment over two years after the transplant, though most patients who experience generalized cognitive decline at 80 days post transplant recover their pre-transplant level of functioning at 1 year follow up. Educating patients about neurocognitive side effects of treatment such as diminished concentration and short-term memory, decreased speed of information processing, and their temporary nature may reduce anxiety and facilitate development of remedial coping strategies.

Evidence suggests that sexual dysfunction is one of the most prevalent long-term problems after HSCT. The sexual dysfunction among HSCT survivors includes: decreased libido, infertility, erectile and ejaculatory

Table 23.4 Complications of Stem Cell Transplantation

Conditioning Related Toxicities	Stem Cell Infusion
• GI disturbance: Nausea, vomiting, diarrhea, impair appetite, mucositis, altered taste sensation • Alopecia, • Fluid overload • Myelosuppression • Fever, fatigue, infections/sepsis • Organ toxicity (cardiac, pulmonary and, renal), dermatitis, hemorrhagic cystitis • Cataracts, parotiditis, infertility, hypothyroidism • Encephalopathy • Osteoporosis • GVHD, graft rejection, prolonged immunosuppression, thrombotic microangiopathy, avascular necrosis, vitiligo, second malignancies and lymphoproliferative disorders	• flushing • hypotension • transfusion and flushing reactions • dyspnea • arrhythmias

dysfunction, premature menopause, vaginal alterations (dryness, stricture, narrowing, fibrosis) and painful intercourse. HSCT survivors have >98% of infertility secondary to gonado-toxic myeloablative chemotherapy with or without total body irradiation received prior to HSCT.

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Chapter 24

Lung Cancer

Joseph A. Greer and Donna B. Greenberg

As the leading cause of cancer death in both men and women, lung cancer carries a heavy emotional burden. Smoking contributes to the cancer in 87 percent of cases, which is often associated with patients experiencing guilt and stigma for the perception of having caused their illness. Although novel innovations with tumor genotyping and development of targeted therapies have improved the treatment of lung cancer in the last decade, the 5-year survival rate of all stages combined is only 16 percent.[9] For those with advanced disease, prognosis is directly related to quality of life and performance status. Patients fear the compromise of hypoxia, chronic coughing, progressive decline in functioning, and brain metastases.[2,3] New data show that integrated palliative and oncology care for patients diagnosed with metastatic lung cancer improves quality of life, mood, and end-of-life care.[10] Treatments for depression, anxiety, and nicotine dependency; treatments for problems with cognition, and side effects of lung cancer treatment that may affect mental status follow. See Tables 24.1–24.3.

Table 24.1 Treatments for Depression, Anxiety, and Nicotine Dependency

Depression	Interventions
• Approximately 20% of patients with lung cancer experience clinically significant depression symptoms[1] • Rates of depression are higher in patients with SCLC (compared to NSCLC) and lower in those who possess EGFR tumor mutations • Although depression is usually more common in women, men with lung cancer have a higher rate of depression when performance status is impaired • Depression often presents as a symptom cluster with fatigue, breathlessness, pain, and/or insomnia • Functional impairment, poor performance status, and perceived stigma due to lung cancer predict worse depression • Chemoradiation is associated with increase in fatigue and symptom interference over course of treatment	• Antidepressants: sertraline (Zoloft®); paroxetine (Paxil®); escitalopram (Lexapro®); fluoxetine (Prozac®); citalopram (Celexa®); venlafaxine (Effexor®); duloxetine (Cymbalta®); desvenlafaxine (Pristiq®) • Anxiolytics: lorazepam (Ativan®); alprazolam (Xanax®); clonazepam (Klonopin®) • Psychotherapy (e.g., cognitive-behavioral therapy) • Promotion of social support to moderate the loss of physical function • Pulmonary rehabilitation and physical therapy to help with reconditioning and stamina

(*continued*)

Table 24.1 (Continued)

Depression	Interventions
• Presence of anhedonia and morning fatigue may help to discriminate depression from cancer-related fatigue • Low energy, social withdrawal, and hopelessness may be mistaken for the limitations due to surgery, chemotherapy, and radiation • Depression may affect adherence to cancer treatment, such as missing prescribed doses of oral chemotherapy • Pain is worse with depression, and neuralgic pain post-thoracotomy may be amplified if the patient is depressed	• Stimulants, e.g. modafinil (Provigil®) and methylphenidate (Ritalin®), may help with fatigue • Assessment and treatment of anemia • Assessment and treatment of pain • Referral to palliative care soon after diagnosis of metastatic lung cancer
Anxiety	
• Symptoms of lung and heart disease overlap with symptoms of panic attacks such as: palpitations or tachycardia, shortness of breath, chest pain, nausea or abdominal distress, sweating, trembling and shaking, feeling of choking, dizziness or faintness, paresthesias, chills or hot flashes, derealization and depersonalization, fear of losing control or going crazy, and fear of dying[5] • Disease and treatment factors that may contribute to anxiety include medication side effects (e.g., antiemetics, glucocorticoid steroids), pulmonary embolism, substance withdrawal (e.g., from benzodiazepines, opioids, nicotine), CNS metastases, and hypoxia (e.g., due to invasive lung disease, pleural effusion or pulmonary edema) • Anxiety may also present as a symptom cluster with depression, dyspnea, pain, fatigue, and insomnia • Common phobias (e.g., blood, injections, confining scans, etc.) may complicate treatment adherence • Existential fears regarding cancer recurrence or progression often exacerbate anxiety, especially at the time of diagnostic and follow-up scans	• Anxiolytics: lorazepam (Ativan®); alprazolam (Xanax®); clonazepam (Klonopin®) • Antidepressants (as listed earlier): SSRIs do not cause sedation or respiratory depression; better for treating anxiety over long-term than benzodiazapines as needed • Cognitive-behavioral therapy and/or stress management for patients with moderate to severe anxiety • Referral for psychotherapies that incorporate supportive-expressive or meaning-centered components to address existential anxiety • Ongoing assessment and remediation of disease and treatment-related factors contributing to anxiety • Referral to palliative care soon after diagnosis for patients with metastatic lung cancer
Smoking cessation (see Chapter 22, Head and Neck Cancer, Table 22.2)[6]	
• Established practice guidelines recommend assessment and documentation of smoking status at every clinic visit • The "5 A's" model is helpful for assessing and treating tobacco use: 1) Ask about tobacco use; 2) Advise to quit; 3) Assess willingness to make a quit attempt; 4) Assist in quit attempt; and 5) Arrange follow-up • In context of nicotine withdrawal, depression, anxiety, and irritability are more likely	• Non-nicotine medications: Varenicline (Chantix®); Buproprion (Wellbutrin®/Zyban®) • Nicotine taper via nicotine delivery system (i.e., gum, inhaler, lozenge, nasal spray, patch) • Counseling (medications work best in combination with cognitive-behavioral interventions)

Table 24.2 Treatments for Problems with Cognition

Problem	Potential Intervention
• Chronic hypoxia is a common reason for cognitive impairment	• Nighttime oxygen and/or daytime oxygen as indicated
• Medication effects causing delirium, memory problems, and sedation	• Elimination of benzodiazepines and anticholinergic medications
• Brain metastases (approximately 25% in patients with NSCLC and 60% of patients with SCLC develop brain metastases)	• Use of prophylactic and palliative cranial irradiation
• Hypercalcemia and hyponatremia may contribute to delirium	• Correction of calcium, sodium, magnesium
• Cerebral vascular insufficiency (secondary to smoking, hypertension, advanced age, etc.)	• Assessment and management of vascular risk factors and consideration of supplemental oxygen treatment at night or all day if chronically hypoxic
• Hypothyroidism may contribute to memory loss (e.g., in lung cancer, may be secondary to radiation near the neck)	• Assessment and management of thyroid function as indicated

• Paraneoplastic effects associated with SCLC (occur rarely)[8]
  • hyponatremia in 15%;
  • ectopic Cushing's syndrome in 5%;
  • paraneoplastic autoimmune encephalomyelitis (<1%)
	• Correction of sodium for hyponatremia
	• Consideration of psychotropic medications to treat symptoms like psychosis, seizure, mood lability
	• Treatment of tumor and anti-steroid medications including mifepristone for ectopic Cushing's

• Limbic encephalitis is a rare syndrome associated with short-term memory deficits, seizures, and dementia.	• Clinical diagnosis supported by findings on EEG and MRI • Treatment of the tumor • Ad hoc treatments with tranquilizers, anticonvulsants or antidepressants

• Leukoencephalopathy—a structural change in cerebral white matter associated with damage to myelin
  • Onset characterized by headaches, visual changes, and seizures
  • Inattention, memory loss, and emotional dysfunction may also be features, which can be confused with clinical depression
  • Severe cases present as dementia, abulia, stupor, or coma
	• Clinical diagnosis supported by white matter edema seen on MRI
	• For posterior reversible encephalopathy syndrome (PRES): Withdrawal of offending agent when possible (e.g., cytotoxic chemotherapy) and control of blood pressure.[8] For persistent cognitive deficits, neuropsychiatric testing, cognitive rehabilitation, and consideration of stimulants or modafinil.

Table 24.3 Effects of Lung Cancer Treatment That May Affect Mental Status

Cancer Treatment	Common Symptoms and/or Potential Interventions
• Surgery	• Pain, dyspnea, cough, fatigue, physical deconditioning.
• Radiation Therapy	• Cranial radiation: fatigue, hair loss, taste disturbance, headache, cognitive impairment.

• Chemotherapy	• Chest radiation: fatigue, dyspnea, cough, esophagitis.
	• Cisplatin (Platinol®)/Carboplatin (Paraplatin®): nausea, vomiting, hair loss, peripheral neuropathy, leukoencephalopathy.
	• Paclitaxel (Taxol®)/Docetaxil (Taxotere®): neuropathy, hair loss, edema.
	• Pemetrexed (Alimta®): fatigue, edema, renal failure, depression.
	• Targeted Therapies:
	  • Bevacizumab (Avastin®): bleeding, blood clots, hypertension, headache, fatigue, leukoencephalopathy.
	  • Erlotinib (Tarceva®): rash, diarrhea, fatigue, loss of appetite.
	  • Crizotinib (Xalkori®): vision problems, nausea, vomiting, diarrhea, constipation, loss of appetite, swelling, fatigue.

• Glucocorticoid Steroids	• Dexamethasone (Decadron®)/Prednisone (Deltasone®): mood instability, insomnia, jitteriness, increased appetite, lability, tearfulness, hypomania, and irritability (symptoms are dose related and stopping steroid medication does not always lead to rapid improvement). • Potential treatments include antipsychotic medications and mood stabilizers. Phenothiazines, haloperidol (Haldol®), olanzapine (Zyprexa®), and risperidone (Risperdal®) are helpful in the acute setting. Benzodiazepines may treat mood irritability and insomnia.
• Early Palliative Care	• The delivery of integrated palliative and oncology care, beginning soon after diagnosis, for patients with metastatic NSCLC is associated with improved symptom management, quality of life, mood, illness understanding, and end-of-life care.

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Chapter 25

Melanoma

Donna B. Greenberg

For high-risk melanoma, surveillance is every 3–6 months for 2 years, then every 3–12 months for 3 years then annually for high-risk melanoma. For low risk melanoma, National Comprehensive Cancer Network (NCCN) recommends visits every 6–12 months for 2 years, then annually. Melanoma is known for its variable course and its sensitivity to immunological treatments. It is also notable for its high rate of metastases in the central nervous system and their tendency to bleed. The main source of anxiety is the worry about recurrence. We know from major studies of psychosocial intervention for early melanomas by Fawzy et al.[6–9] that psychosocial interventions effectively ease the distress related to this diagnosis.[7,16] Biological and targeted treatments for melanoma, their side effects and implications for psychiatric treatment and possible interventions for psychological issues follow. See Tables 25.1 and 25.2.

Table 25.1 Biological and Targeted Treatments for Melanoma

Medication	Side Effects	Implications for Treatment
Iplimumab		
CTLA-4 antibody overcomes CTLA-4 mediated T cell suppression to enhance immune response against tumor. Increases gamma interferon	Hypophysitis, (hypothyroid, hypoadrenal, hypogonadal) uveitis, nephritis, inflammatory myopathy colitis, hepatitis, hyperthyroidism.	Screen for hypothyroidism. Consider thyroxine. Think about adrenal insufficiency especially after steroid treatment for immune adverse events. Consider corticosteroids.
Vemurafenib		
BRAF kinase inhibitor. Prolongs both progression free and overall survival in patients with melanoma containing BRAF V600 mutation. Active in brain.	Prolongs QT interval. Peripheral facial palsy. Uveitis. Severe radiation dermatitis.	Avoid haloperidol, tricyclic antidepressants, phenothiazines, thioridazine, methadone.

(*continued*)

Table 25.1 (Continued)

Medication	Side Effects	Implications for Treatment
Dabrafenib BRAF kinase inhibitor; V600E mutation of BRAF. Active in brain.	Febrile reactions Hyperglycemia, uveitis.	
Trametinib Inhibits MEK1/MEK2 For those with melanoma mutations BRAF V600E or V600K.	Can reduce cardiac ejection fraction, interstitial lung disease; retinal detachment.	Take note of visual problems or dyspnea.
Alpha interferon- prescribed for as long as a year at moderate doses to reduce the risk of recurrence in patients with advanced melanoma.[3,10-12,15]	Anxiety, insomnia, a motor restlessness or akathisia. Clinical depression, suicidal thoughts. Symptoms of depression can include irritability, insomnia, excessive guilt, and tearfulness, difficulties with concentration and clarity of thought. Occasionally hypomania, mania or psychosis. Flulike syndrome with the fever, body aches, malaise, and fatigue normally associated with a viral condition. Occasionally, severe psychiatric side effects: confusion, suicidal thoughts, and hallucinations.	• Antidepressant medication is effective for the major depressive disorder caused by interferon. Serotonin reuptake inhibitors are used most commonly. • In order to reduce risk of depression, antidepressants may be started four weeks in advance. • Consider autoimmune thyroiditis as a cause of anxiety or fatigue and depression. Patients may have transient hyperthyroidism or hypothyroidism. Monitor thyroid function. • Interferon can inhibit P450 isoenzymes CYP1A2, 2D6 and 2C19, delaying metabolism of some antidepressants. higher doses of antidepressant may lead to higher serum levels and side effects. • If an antidepressant medication is not working, reconsider the diagnosis. The patient may be manic, hypomanic, hypothyroid, or suffering side effects of the antidepressant.

(*continued*)

Table 25.1 (Continued)

Medication	Side Effects	Implications for Treatment
		Benzodiazepines for anxiety, antidepressant medications for interferon- induced depression, mood stabilizers for mood lability or hypomania. Acetominophen for flu-like syndrome.
Interleukin-2 (IL2)[3]	Flu syndrome, depressive symptoms, and confusion as part of a capillary leak syndrome. Impairments of working spatial memory and planning have been noted after 5 days. The pattern differs somewhat from the psychiatric side effects of interferon alone.	Resolves after treatment.

Table 25.2 Interventions for Psychological Issues with Melanoma

Psychological Issues	Treatment
Management of risk for other fair-skinned, redheaded, or high-risk family members with family history melanoma, dysplastic nevi.	Hear the patient out. Consider genetic counseling Educate family members about risk
Guilt about sun exposure and risk taking.	Help patient focus on present, not past. Screening by regular dermatological evaluation.
Anxiety due to risk of recurrence.	Psychosocial interventions to cope with anxiety. Cognitive-behavioral therapy.[16] Education about melanoma. Relaxation techniques. Group and individual. interventions. Educate patient about variable course of disease.
High risk of central nervous system metastases, often hemorrhagic.	Hear out concerns about changes in neurological function and carefully assess medically.

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Appendix

National Resources

Mitch Golant and Matthew J. Loscalzo

General Cancer Information

National Cancer Institute (NCI)

www.cancer.gov
(the website you had, www.nci.org, took me to the Control Institute)

The NCI conducts and supports research, training, health information dissemination, and other programs with respect to the cause, diagnosis, prevention, and treatment of cancer, rehabilitation from cancer, and the continuing care of cancer patients and their families.

American Cancer Society

http://www.cancer.org/docroot/home/index.asp

The American Cancer Society is the nationwide community-based voluntary health organization dedicated to eliminating cancer as a major health problem by preventing cancer, saving lives, and diminishing suffering from cancer through research, education, advocacy, and service.

American Society of Clinical Oncology (ASCO)

http://www.asco.org

The ASCO is the world's leading professional organization representing physicians who treat people with cancer through more effective treatments, increased funding for clinical and translational research, and cures.

American College of Surgeons

http://www.facs.org

The American College of Surgeons is a scientific and educational association dedicated to improving the care of the surgical patient and to safeguarding standards of care in an optimal and ethical practice environment.

American Society for Therapeutic Radiology and Oncology (ASTRO)

http://www.astro.org

ASTRO is dedicated to improving patient care through education, the advancement of science, and representing radiation oncology in the health policy arena.

American Psychosocial Oncology Society (APOS)

http://www.apos-society.org

APOS includes all health-care professionals who seek to advance the science and practice of psychosocial care for people with cancer.

International Psycho-Oncology Society (IPOS)

http://www.ipos-society.org

IPOS is the international, multidisciplinary organization dedicated to the science of psychosocial and behavioral oncology and improving the care of cancer patients and their families throughout the world.

Patient Education, Information, Advocacy, and Support

American Psychosocial Oncology Society (APOS) *Helpline*

http://www.apos-society.org/survivors/helpline/helpline.aspx

(the other website link didn't work)

APOS *Helpline* is a toll-free hot line (1-866-276-7443 or 1-866-APOS-4-HELP) for cancer patients and advocacy organizations to obtain referrals for local counseling and support services throughout the United States.

CancerCare

CancerCare offers professional support services to anyone affected by cancer, including people with cancer, caregivers, children, loved ones and the bereaved. Programs include counseling and support groups, educational workshops, financial assistance, and practical help, all of which are provided by professional oncology social workers at no charge. These counseling services are offered in English and Spanish with bilingual social workers as well as publications in Spanish.

Contact:
1-800-813-HOPE (4673)
www.cancercare.org

The LIVESTRONG Foundation

LIVESTRONG Navigation Services assist with providing referrals to in-house programs like Emotional Support, to connect clients with support groups, supportive guidance, and counseling services. LIVESTRONG Fertility helps explore fertility preservation options with clients. Navigation services also provide referrals to partners who can help address financial, insurance, debt crisis, and workplace concerns; clinical trial information; peer mentor matching; and health literacy to help understand medical reports and results.

Contact:
1-855-220-7777
http://www.livestrong.org/we-can-help/navigation-services/

The National Coalition of Cancer Survivorship

www.canceradvocacy.org/

The National Coalition for Cancer Survivorship is the oldest survivor-led advocacy organization working on behalf of people with all types of cancer and their families.

National Patient Advocate Foundation

http://www.npaf.org/

The National Patient Advocate Foundation is a national nonprofit organization providing the patient with a voice in improving access to, and reimbursement for, high-quality health care through regulatory and legislative reform at the state and federal levels. The National Patient Advocate Foundation provides professional case-management services to individuals facing barriers to health-care access for chronic and disabling disease, medical debt crisis, and employment-related issues at no cost.

OncoLink

http://www.oncolink.com/

OncoLink was founded in 1994 by The University of Pennsylvania's cancer specialists with a mission to help cancer patients, families, health-care professionals, and the general public receive accurate cancer-related information at no charge.

Cancer.Net

http://www.cancer.net/ is the patient information website of the American Society of Clinical Oncology (ASCO) that provides oncologist-approved information on more than 50 types of cancer and their treatments, clinical trials, coping, and side effects.

Cancer Support Community (CSC)

CSC Local Affiliate Network: CSC has a national network of more than 50 local affiliates and 100 satellite locations that provide programs and services. CSC local affiliate programs are free of charge. To find an affiliate in your community, visit http://www.cancersupportcommunity.org/MainMenu/Cancer-Support/Find-a-Local-CSC-Affiliate

National toll-free Cancer Support Helpline: CSC's TOLL-FREE Cancer Support Helpline is open Mon-Fri 9 am- 8 pm ET. It is staffed by trained counselors.

Contact: 1-888-793-9355

http://www.cancersupportcommunity.org/MainMenu/Cancer-Support/Cancer-Support-Helpline.html#sthash.CXC0vZC6.dpuf

Alliance for Quality Psychosocial Cancer Care

www.wholecancerpatient.org

The Alliance has created a searchable database of local, state, and national resources for psychosocial care services. The Database includes resources to address a range of social and emotional needs of cancer patients and families.

Caregiver Resources

The National Family Caregivers Association

http://www.nfcacares.org/

The National Family Caregivers Association (NFCA) supports, empowers, educates, and speaks up for the more than 50 million Americans who care for a chronically ill, aged, or disabled loved one.

Children and Families

American Childhood Cancer Organization (ACCO)

Childhood Cancer Patient Navigation Services includes a list of Children's Oncology Group certified treating institutions, a comprehensive manual of childhood cancer organizations and resources, information on clinical trial phases, emotional support, referrals to local ACCO family support programs, and referrals to ACCO's online support community, Inspire Community.

Contact:

1-855-858-2226

http://www.acco.org/Information/Support/PsychologicalEmotional.aspx

https://www.inspire.com/groups/american-childhood-cancer-organization/

The National Childhood Cancer Foundation

www.curesearch.org

On this site you will find information that addresses all aspects of the care of children with cancer. CureSearch for Children's Cancer is a nonprofit organization that funds and supports targeted and innovative children's cancer research with measurable results, and is the authoritative source of information and resources for all those affected by children's cancer.

Childrens Oncology Group

www.childrensoncologygroup.org

The mission of the Childrens Oncology Group is to cure and prevent childhood and adolescent cancer through scientific discovery and compassionate care.

Bereavement and Grief Counseling

Association for Death Education and Counseling (ADEC)

http://www.adec.org

ADEC is dedicated to promoting excellence in death education, care of the dying, and bereavement counseling through its multicultural and multidisciplinary membership.

The American Academy of Hospice and Palliative Medicine (AAHPM)

http://www.aahpm.org

AAHPM is dedicated to the advancement of palliative medicine through prevention and relief of patient and family suffering by providing education and clinical practice standards, fostering research, facilitating personal and professional development, and by public policy advocacy.

Legal Resources

Cancer Legal Resource Center (CLRC)

CLRC National Telephone Assistance Line: Callers can receive free and confidential information about laws and resources for their particular situation. Members of CLRC's Professional Panel of attorneys, insurance agents, and accountants can provide additional assistance. There is also an intake form available online.

Contact:
1-800-THE-CLRC (843-2572)
www.cancerlegalresourcecenter.org

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